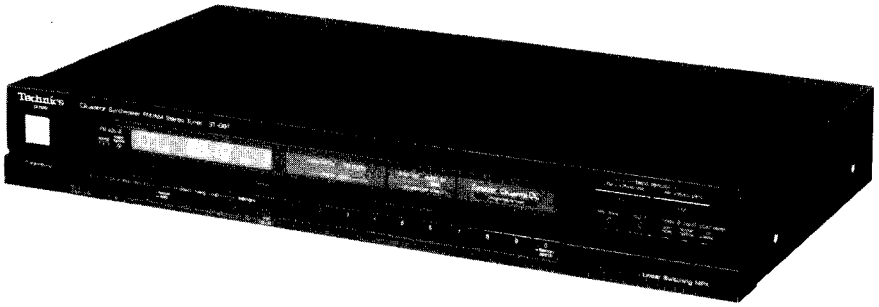
ORDER NO. HAD85062579C9

Service Manual

Tuner

QUARTZ Synthesizer AM/FM Stereo Tuner

ST-G6T



Color

(K)...Black Type
(S)...Silver Type

Color	Areas
(K) (S)	[DX] ..... Scandinavia.
(K) (S)	[DM]..... Denmark.
(K) (S)	[EH] ..... Holland.
(K) (S)	[XA]..... Asia, Oceania, Afirca, Middle Near East, Latin America.
(K) (S)	[XL]..... Australia.
(K) (S)	[XS]..... South Africa.
(K) (S)	[PA]..... Far East PX.
(K) (S)	[PE]..... European Military.

SPECIFICATIONS

(DIN 45 500)

■ FM TUNER SECTION

Frequency range	87.50~108.00 MHz
	87.525~108.00 MHz (+25 kHz shift)
Sensitivity	1.5 μV (IHF, usable)
S/N 30 dB	1.3 μV (75Ω)
S/N 26 dB	1.2 μV (75Ω)
S/N 20 dB	0.9 μV (75Ω)
IHF 46 dB stereo quieting sensitivity	28 μV/75Ω
Total harmonic distortion	
MONO (normal)	0.02%
STEREO (normal)	0.03%
S/N	
MONO	72 dB (80 dB, IHF)
STEREO	68 dB (73 dB, IHF)
Frequency response	4 Hz~18 kHz, +0.5 dB~−1.5 dB
Alternate channel selectivity	
normal ±400 kHz	50 dB
super narrow ±200 kHz	25 dB
Capture ratio	1.0 dB
Image rejection at 98 MHz	100 dB
IF rejection at 98 MHz	100 dB
Spurious response rejection at 98 MHz	110 dB
AM suppression	55 dB
Stereo separation	
1 kHz	60 dB
10 kHz	45 dB
Carrier leak	
19 kHz	−55 dB (−60 dB, IHF)
38 kHz	−40 dB (−45 dB, IHF)
Channel balance (250 Hz~6,300 Hz)	±1.0 dB
Limiting point	0.85 μV
Bandwidth	
IF amplifier	180 kHz
FM demodulator	1.000 kHz
Antenna terminals	75Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	
(For Europe, South Africa and Australia)	
	522~1611 kHz (9 kHz-step)
	530~1610 kHz (10 kHz-step)
(For Saudi Arabia and others)	531~1620 kHz (9 kHz-step)
	530~1610 kHz (10 kHz-step)
Sensitivity (S/N 20 dB)	20 μV, 300 μV/m
Selectivity (±9 kHz)	55 dB
Image rejection at 999 kHz	40 dB
IF rejection at 999 kHz	60 dB

■ TIMER SECTION

Clock	Quartz-lock type
	24-hour indication
Precision	Within 0 sec.~10sec. monthly (at 25°C)
Functions	24-hour programmable;
	everyday (1 time)
	once only (1 time)
Programmable content	Program source (FM, AM)
	Power ON/OFF timing
	Designation of preset station
Setting intervals	1 minute~23 hours, 59 minutes
	(at 1-min. intervals)
Priority order	once, everyday,

■ GENERAL

Output voltage	0.3V (0.6V IHF)
Power consumption	9.5W (clock 8W)
Power supply	
For Australia	AC 50 Hz/60 Hz, 240V
For continental Europe	AC 50 Hz/60 Hz, 220V
For others	AC 50 Hz/60 Hz, 110V/127V/220V/240V

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

Panasonic Tokyo Office
Matsushita Electric Trading Co., Ltd.
1-2, 1-chome, Shibakoen, Minato-ku, Tokyo 105, Japan

Dimensions (W×H×D)	430 × 64 × 241 mm (16-15/16" × 2-17/32" × 9-1/2")
Weight	2.3 kg (5.07 lb.)

Notes:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

THIS TUNER IS CAPABLE OF RECEIVING THE NEW AM STEREO BROADCASTS FROM THE AM BAND RADIO STATIONS, HOWEVER LIKE MANY TUNERS CURRENTLY AVAILABLE ON THE MARKET IT WILL REPRODUCE THIS AM STEREO SIGNAL ONLY IN AM MONO, WHICH, IN EFFECT, IS OF NO LESSER QUALITY THAN YOUR EXISTING AM MONO TUNER.

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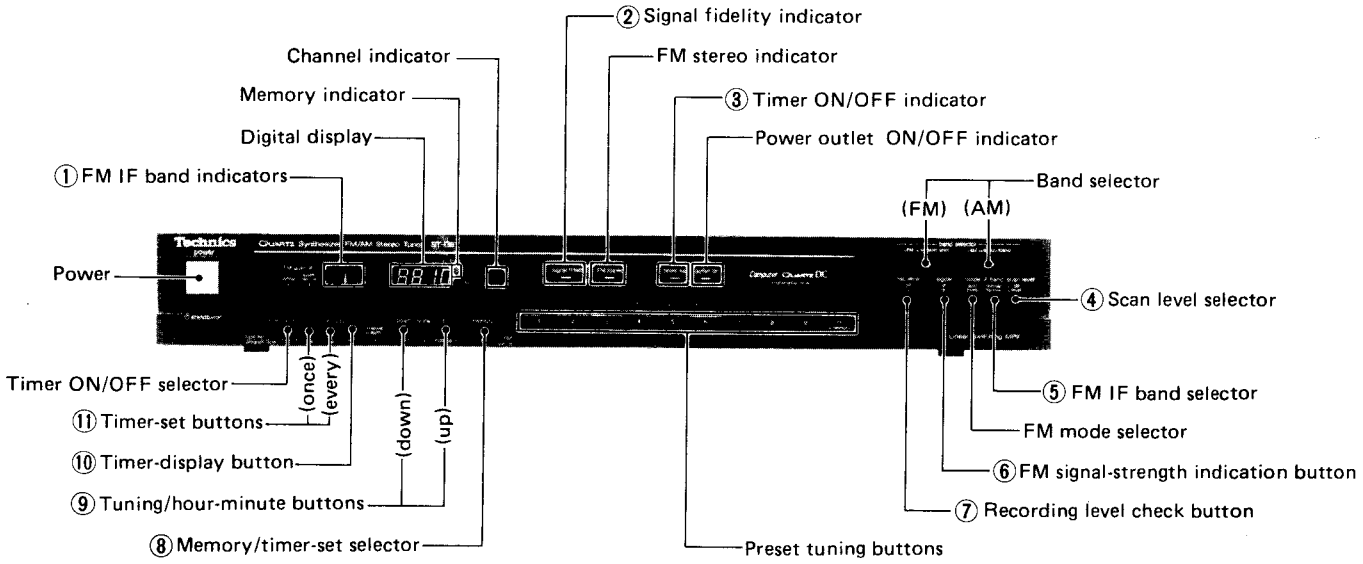
■ LOCATION OF CONTROLS



① FM IF band indicators (FM auto IF)

normal ⌜▲⌝:
This indicator will illuminate if the signal is strong and there is little effect from interference.

super narrow ⌜▲⌝:
This indicator will illuminate if the signal is weak and/or there is interference.

When the ▲ mark (quartz lock) illuminates:
This indicates that this unit is precisely tuned to the broadcasting station's transmission on the frequency selected.

② Signal fidelity indicator (signal fidelity)

This indicator illuminates when reception conditions are optimum (signal strength relative to interference) for FM broadcasts.

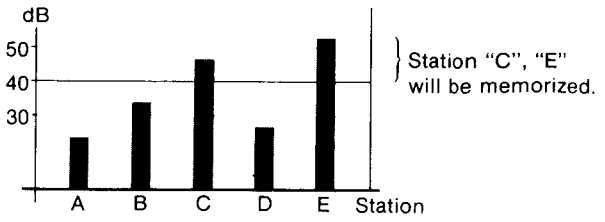
③ Timer ON/OFF indicator (timer set)

This indicator indicates the ON/OFF condition of the timer operation.

④ Scan level selector (scan level)

This button is used for the setting of the level of the reception signal during automatic FM tuning.
When this button is pressed continuously, numerals (30, 40, 50) will appear in the digital display; release the button at the desired display.
After the desired scan level has been selected, it will then be possible to tune to and receive broadcasts of this level or higher, and to enter (into the memory) stations with high levels.

- **Example if set to the 40-dB level (applicable to automatic tuning only)**



⑤ FM IF band selector (IF band)

For selection of the FM IF band.

The built-in computer of this unit detects the signal condition and functions accordingly to select the FM IF band automatically. This button is used to change it manually.

⑥ FM signal-strength indication button (signal)

If this button is pressed during reception of an FM broadcast, the signal strength (the strength of the signal of the boradcast being received) will be displayed within a 2 dB accuracy.

If the strength of the signal being received is 50 dB/75Ω or more, a symbol (▪) will appear between the number and dB to indicate that a strong signal of 50 dB/75Ω or more is being received. The signal will become saturated at 50 dB or more.

In order to resume the frequency display, press the button once again.

⑦ Recording level check button (rec level)

This button is to be used for adjustment of the recording level when recording an FM broadcast. When this button is pressed, the microcomputer functions to emit a reference signal of precisely 333 Hz from the output terminals of this unit. The word "CAL" (calibration) will be shown by the digital display.

In order to return to the original frequency indication, press this button again.

Adjustment of the recording level:

Use the input-level control(s) of the tape deck to make the adjustment while watching the recording-level meters.

- For VU meters and level meters: Adjust so that the indication is about +2 VU or +2 dB.
- For peak-level meters: Adjust so that the indication is about −2 dB.

Notes:

1) Because the ideal recording level is apt to vary depending upon the program source and the characteristics of the tape deck, the adjustment should be made by also considering those factors.
2) Don't press the operation buttons of this unit during a recording.

⑧ Memory/time-set selector (memory)

For tuner operation:

This button is used when preset memory setting of the preset-tuning buttons is made.

For timer operation:

Set to this position to set the time display to the correct time or to cancel the timer settings.

⑨ Tuning/hour-minute buttons (tuning)

For tuner operation:

These buttons are used for tuning to the desired broadcast station.

For timer operaiton:

These buttons are to be used to select the hour and minutes when the correct present time is set, and when the timer on-off program is set.

⑩ Time-display button (clock)

For tuner operation:

Press this button if, during FM or AM broadcast reception, you want to see the correct time.

The present time will be displayed when this button is pressed. In order to return to the original frequency indication, press this button again.

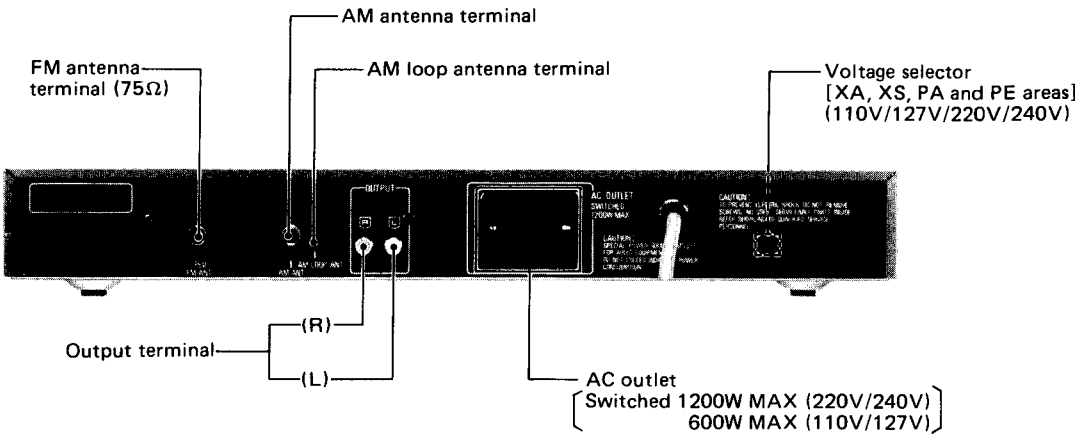
For timer operation:

Press this button first before setting the present time.

After pressing this button to display the clock, use the memory-set/time-set selector and the tuning/hour-minute buttons to set the display to the correct present time.

⑪ Timer-set buttons (once/everyday)

Use these buttons when programming the timer, when checking the timer setting, and when cancelling the timer setting.

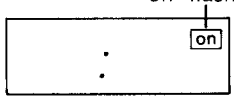


■ OPERATION

To set for every day timer operation

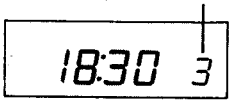
1 Press.
(The power is switched ON and the FM or AM frequency is displayed.)

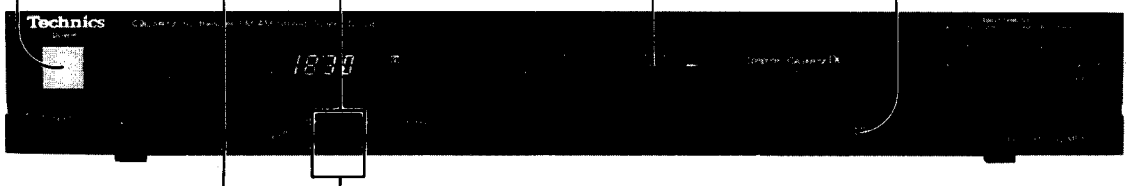
2 Press.
"on" flashes.



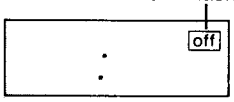
3 Set to the timer ON (start) time.
Example: Set to 18:30 for 6:30 PM timer start.
- "hour" button for hours
- "minute" button for minutes

4 Press the button for the desired FM or AM "channel".
The "channel" number is displayed.





5 Press.
"off" flashes.



6 Set to the timer OFF (stop) time.
If the timer OFF (stop) time is not set, an automatic setting (60 minutes after the time set in step 3) will be programmed into the memory.
If 18:30 was set in step 3, therefore, 19:30 will be automatically set as the OFF time.

7 Press.
The display will return to the FM or AM frequency display; the timer programming is finished, and the timer on/off indicator illuminates.

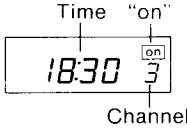
To set for once-only timer operation

Press the "once" button in steps 2, 5 and 7 of the preparations for every day timer operation.

• Press "once" to set for once-only timer operation.

To cancel the timer setting

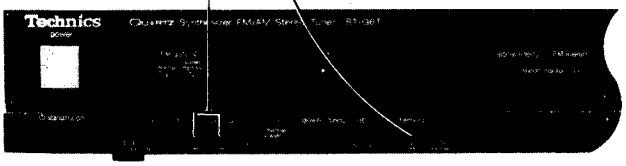
1 Press the "everyday" (or "once") button.



The time, "on" and channel indications will flash.

2 Press.

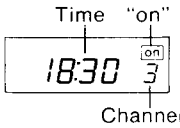
The displayed timer settings will be erased and the display will return to the frequency display.



Checking the timer settings

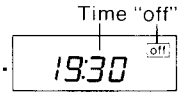
Press the "everyday" (or "once") button 3 times.

1 Press.



The time, "on" and channel indications will flash.

2 Press.



The time and "off" indications will flash.

3 Press. The display returns to the FM or AM frequency.

Setting the sleep timer

This setting is made when you want to set the power OFF time only.

To make the setting, use either the "everyday" or "once" button and set only the power OFF time.

1. Follow the steps in "To cancel the timer setting" (at the left).
2. Make the timer setting, omitting steps 3 and 4 of the section "To set for every day (at the same time) timer operation" or "To set for once-only timer operation".

Priority of timer operation

• Types of timer operation :

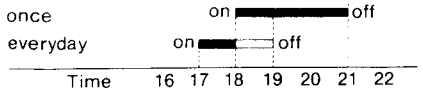
1. "once" ..... The power (timer) is switched ON (started) once only and is switched OFF (stopped) once only.
   (The programmed setting is cancelled after the timer operates once.)
2. "everyday" ..... The power (timer) is switched ON and switched OFF at the same time every day.
   (The programmed setting is not cancelled after the timer operates.)

• Timer operation order of priority : A once-only setting has priority over an every day setting.
Examples are given below for your reference.

■ ..... The timer will operate.
□ ..... The timer will not operate.

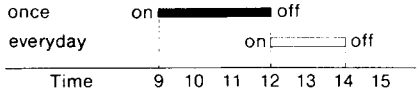
Example 1
In this case, the every day operation will stop before its programmed stop (OFF) time.

	Power ON time	Power OFF time
once	18:00	21:00
everyday	17:00	19:00



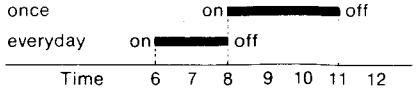
Example 2
In this case, the every day operation will not start.

	Power ON time	Power OFF time
once	9:00	12:00
everyday	12:00	14:00



Example 3
In this case, both (once-only and every day) will operate as programmed.

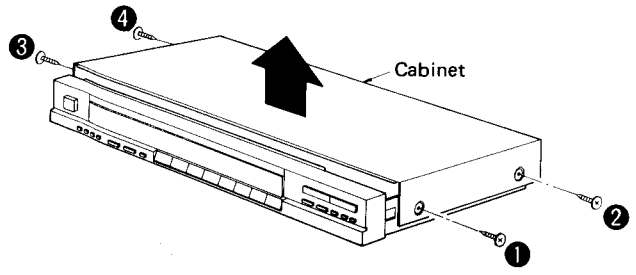
	Power ON time	Power OFF time
once	8:00	11:00
everyday	6:00	8:00



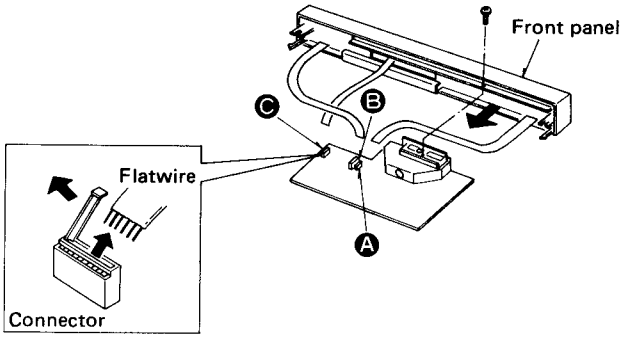
Note:
In this case, both are possible, however, if the once-only OFF setting is changed to 11:59 or earlier, or the every day ON setting is changed to 12:01 or later.

■ DISASSEMBLY INSTRUCTIONS

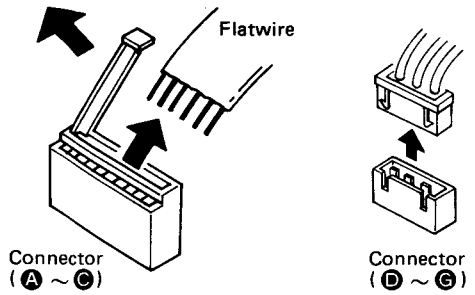
Ref. No. 1	How to remove the cabinet
Procedure 1	• Remove the 4 screws. (❶ ~ ❹)

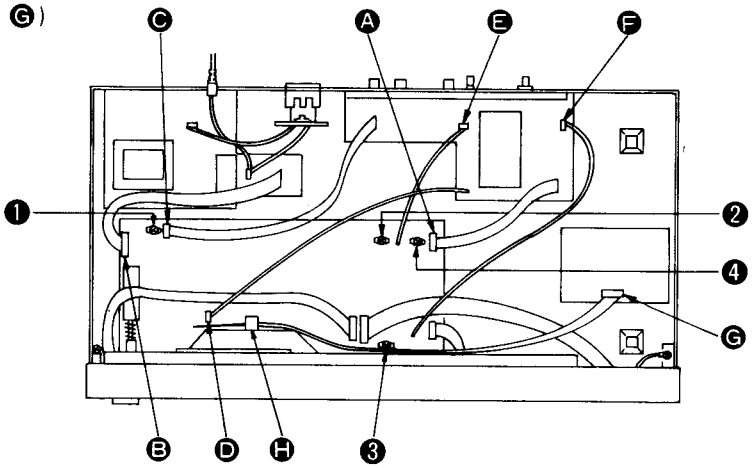


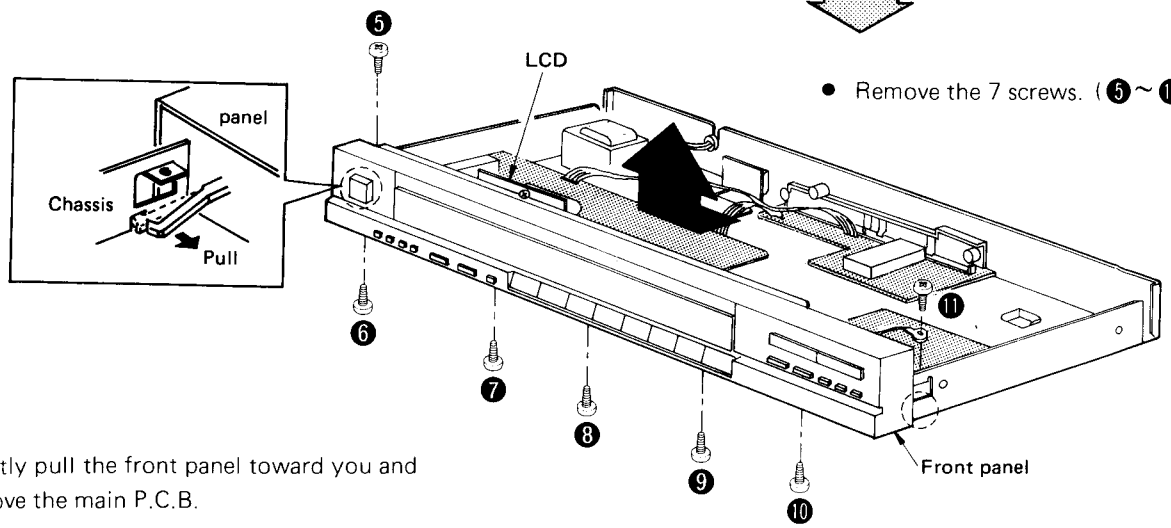
Ref. No. 3	How to remove the front panel
Procedure 1➡2➡3	• Remove the 1 screw. • Remove the 3 flatwires. (Ⓐ~Ⓒ)



Ref. No. 2	How to remove the main P.C.B.
Procdure 1➡2	• Remove the 4 screws. (❶ ~ ❹) • Remove the 3 flatwires. (Ⓐ ~ Ⓒ) • Remove the 4 connectors. (Ⓓ ~ Ⓖ) • Remove the LCD lamp from the lamp case. (Ⓗ)



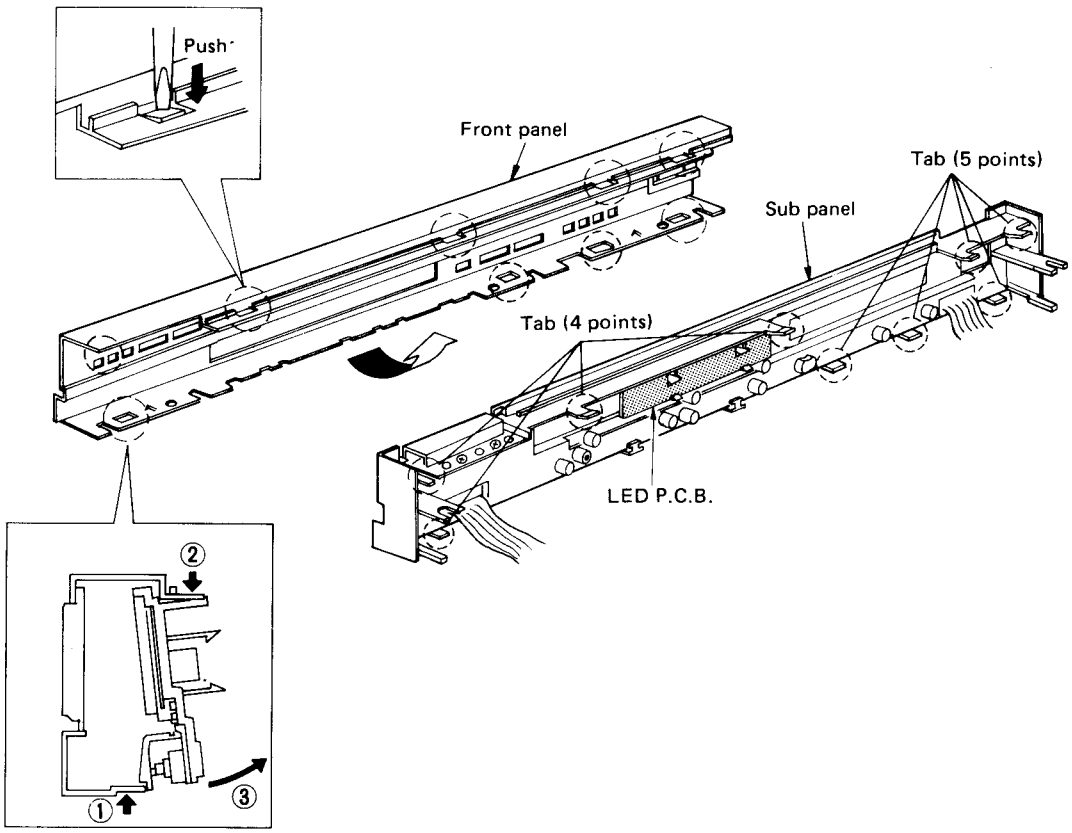




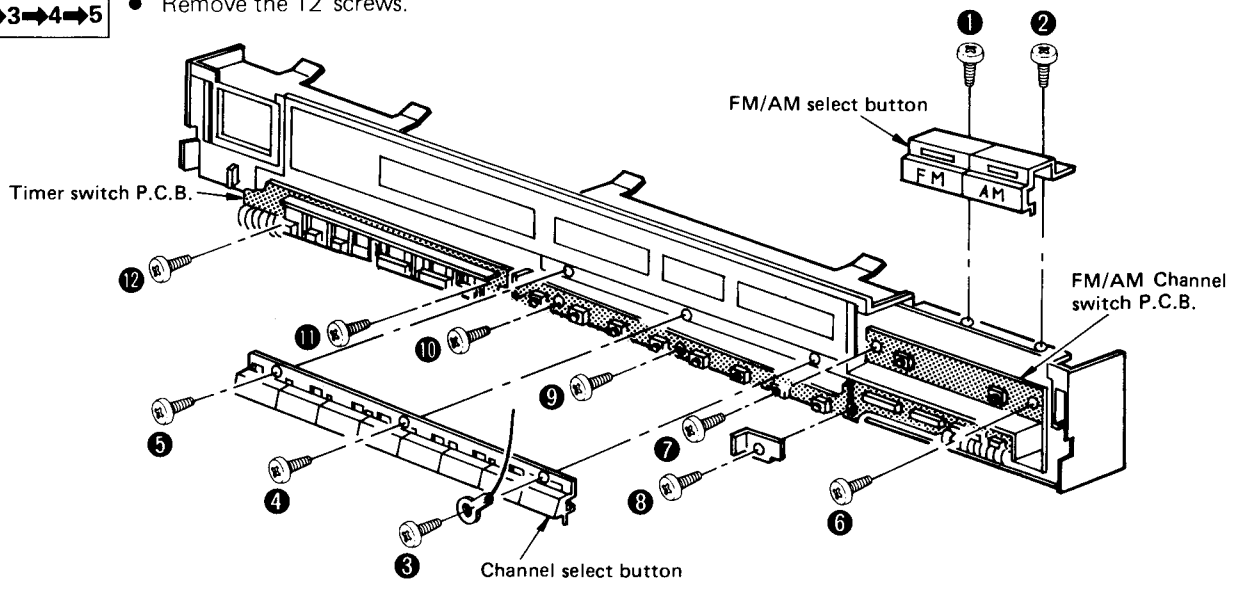
• Remove the 7 screws. (❺~⓫)

• Slightly pull the front panel toward you and remove the main P.C.B.

Ref. No. 4	How to remove the sub panel
Procedure 1➡2➡3➡4	• Push out the 9 tabs on the bottom and top side of the sub panel by used minusdriver.



Ref. No. 5	How to remove the FM/AM Channel switch P.C.B. and Timer switch P.C.B.
Procedure 1➡2➡3➡4➡5	• Remove the 12 screws.



■ MEASUREMENTS AND ADJUSTMENTS

■ AM/FM

Control positions and equipment used

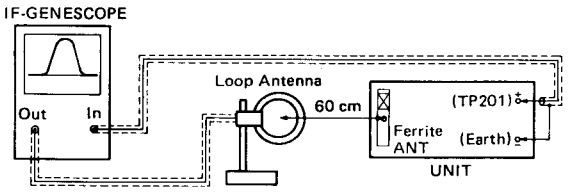
- AM and FM signal generator (AM and FM-SG).
- Stereo modulator
- Distortion analyser
- Oscilloscope
- AC and DC electronic voltmeter (EVM)
- Frequency counter
- Choke coil (100μH)
- Resistor (100kΩ)
- Ceramic capacitor (200pF)

Note: For **L203** (AM OSC coil), adjusted parts is supplied. So, do not turn the core of this part.

AM-IF ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Place unit into "**AM**" position.
3. Place the radio dial setting to point of non-interference.
4. Adjust **T201** for maximum output and symmetrical curve.

GENESCOPE CONDITION
Frequency..... 450 kHz

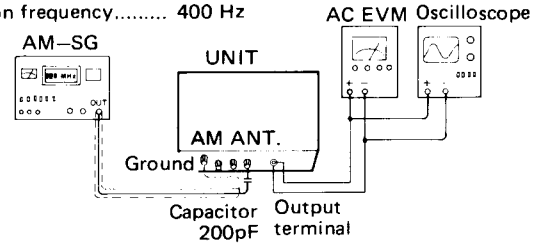


AM-RF ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Set the unit to "**AM**" position.
3. Place the radio frequency display and signal generator setting to **612 kHz**.
4. Adjust **L202** for maximum output.
5. Place the radio frequency display and signal generator setting to **1503 kHz**.
6. Adjust **CT201** for maximum output.
7. Repeat steps 3 ~ 6.

Note: Antenna input level must be as low as possible being free from AGC.

AM SIGNAL GENERATOR CONDITION
Modulation 30%
Modulation frequency..... 400 Hz

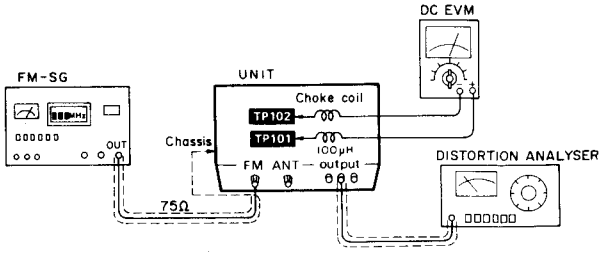


FM MONO DISTORTION ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Set the unit to "**FM**" position.
3. Place the radio frequency display and signal generator setting to **100.10 MHz**.
4. Adjust **T101** core so that voltage measured in signal mode is **0 mV (0 ± 50 mV)** in 1V range.
5. Adjust **T102** so that the distortion factor of L ch is minimized.
6. Repeat steps 4 and 5 a few times.
7. Make sure that the distortion factors of L ch and R ch are nearly the same with each other.

Note: The adjusting screwdriver used should be made of resin.

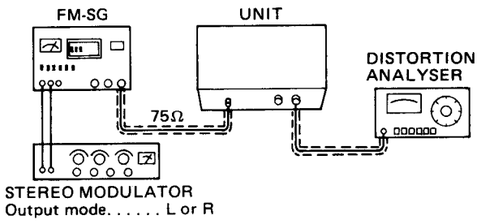
FM SIGNAL GENERATOR CONDITION
Modulation..... 100%
Modulation frequency..... 400 Hz
Output level..... 66 dB



FM STEREO DISTORTION ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Set the unit to "**FM**" position.
3. Place the radio frequency display and signal generator setting to **100.10 MHz**.
4. Adjust **T1** so that the distortion factor of L ch is minimized.
5. Make sure that the distortion factors of "**L**" and "**R**" are nearly the same with each other.

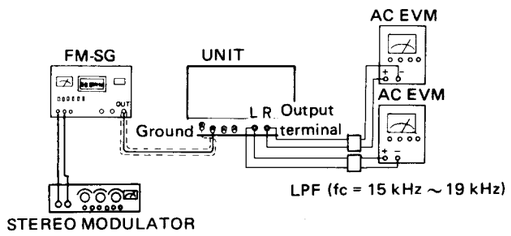
FM SIGNAL GENERATOR CONDITION
Modulation 90%
Modulation frequency . . . . . .400 Hz
Output level . . . . . .66 dB



SEPARATION ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Set the unit to "**FM**" position.
3. Place the radio frequency display and signal generator setting to **100.10 MHz**.
4. Adjust **VR301** so that R output is minimized when stereo modulator is in "**L**" (L ch modulation) mode.
5. The mode must be "**R**" for "**R**" channel; and L → R, R → L separation must be **40 dB** at least.

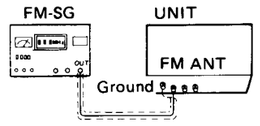
FM SIGNAL GENERATOR CONDITION
Modulation ..... "L" mode or "R" mode 90%, Pilot 10%
Modulation frequency..... 1 kHz, Pilot (19 kHz)
Output level..... 66 dB



SIGNAL STRENGTH LEVEL ADJUSTMENT

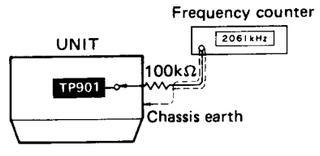
1. Test equipment connection is shown in figure.
2. Set the unit to "**FM**" position.
3. Place the radio frequency display and signal generator setting to **100.10 MHz**.
4. Change **LCD** display from frequency to **dB** by pressing the **FM** signal button.
5. Adjust **VR101** so that **54 dB** in indicated.
6. Make sure that the signal strength level is **22 ~ 38 dB** when the input is **30 dB**.

FM SIGNAL GENERATOR CONDITION
Modulation..... 30%
Modulation frequency..... 400Hz
Output level..... 60 dB

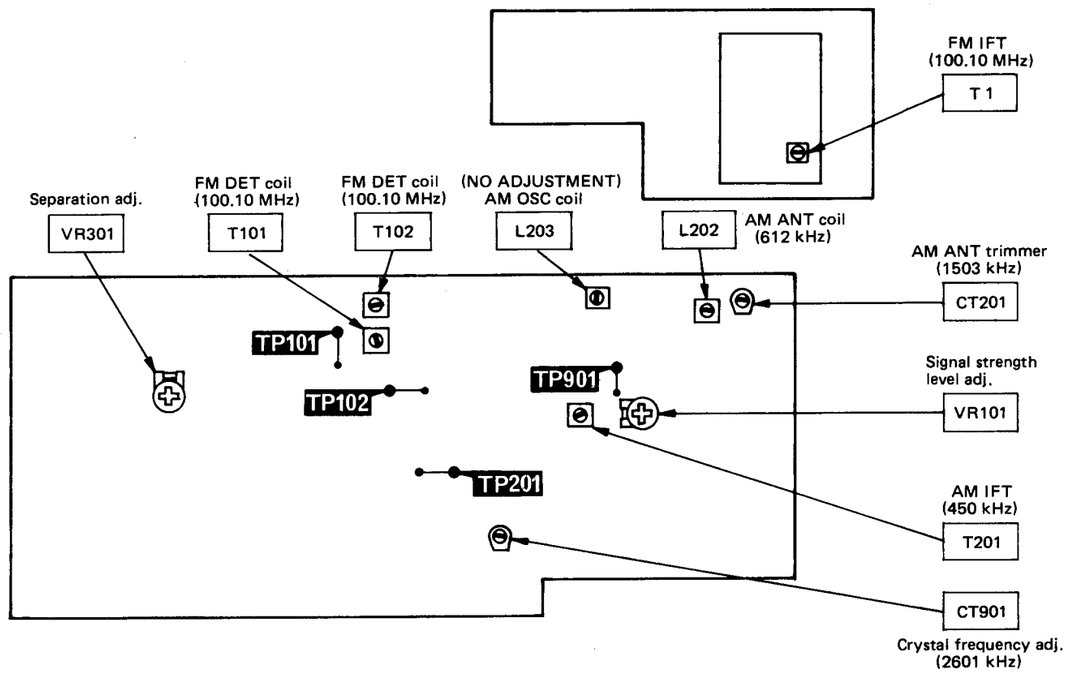


CRYSTAL FREQUENCY ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Set the unit to "**AM**" position.
3. Place the radio frequency display settint to **1611 kHz**.
4. Adjust **CT901** for **2061 kHz ± 0.002 kHz** on frequency counter reading.

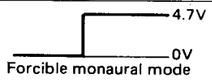
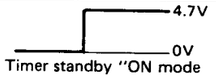
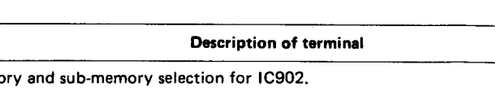


■ ADJUSTMENT POINTS



■ FUNCTION OF TERMINAL (IC901: μPD1714G514)

Pin No.	IN/OUT	Mark	Description of terminal
1	———	NC	Ground terminal.
2	———	EO1	Not used in this unit.
3	OUTPUT	EO2	The frequency is output as a result of comparison between LCD frequency and FM of AM station frequency.
4	———	GND	Ground terminal.
5	INPUT	AM	Input for AM OSC output. 1.84V, 1.87V, 522kHz, 1611 kHz
6	INPUT	FM	Input for FM OSC output frequency divided to 1/32 or 1/33 by pre-scaler.
7	INPUT	CE	Power supply detection. "H" input with it connected to home-use power outlet socket. H → 4V, L → 0V
8	———	GND	Ground terminal.
9	OUTPUT	MUTE	This is the outpu terminal to eliminate shock noise due to unlocking at PLL. < Muting output > 1. Pin 7 (CE) is L → H or H → L. 2. Power switch "off". 3. Frequency change. (up/down, FM ↔ AM, REC). 4. FM IF selection. 4.8V, 0V, Muting output operation
10	OUTPUT	REC	This is the output terminal to REC carriburation (333 Hz) signal. 1. REC (for REC level check) switch "ON" mode → H (4.8V) 2. REC (for REC level check) switch "OFF" mode → L (0V)

Pin No.	IN/OUT	Mark	Description of terminal
11	OUTPUT	SDC	Main memory and sub-memory selection for IC902.
12	OUTPUT	RFATT	AM auto-stop level selection.
13	INPUT	AM	AM selector. H (4.8V) → AM
14	———	FM	Not used in this unit.
15	———	LW	
16	———	SLEEP	
17	OUTPUT	POWER	Power switch "ON-OFF" selection output. 1. Power switch "ON" mode → L (6.95V). 2. Power switch "OFF" mode → H (8.95V).
18	INPUT	STEREO	Stereo detection. 1. Stereo mode → L (6.95V). 2. Mono mode → H (7.68V).
19	INPUT	SD	Station detection. 1. Signal received → H (5V). 2. NO signal → L (0V).
20	OUTPUT	WIDE	FM IF range selection. 1. Super narrow mode → L (0V) 2. Normal mode → H (4.7V)
21	OUTPUT	MONO	Forcible monaural selection.  Forcible monaural mode
22	OUTPUT	STANDBY	Timer standby output.  Timer standby "ON mode
23	OUTPUT	SO	Chip enable control for IC902.
24	OUTPUT	X OUT	Connecting terminal for crystal oscillator. The crystam connected is at 4.5 MHz.
25	INPUT	X IN	
26	INPUT	V_{DD}	Power supply terminal. (4.7V)
27	OUTPUT	CGP	Clock pulse waveform output.
28 ~ 39	OUTPUT	S27 ~ S16	Segment signal output for LCD display/Data output for IC902 (pin No. 28 ~ 31).
40 ~ 55	OUTPUT	S15 ~ S0	Segment signal output and key source signal output for LCD display. 
56	OUTPUT	COM 0	Common of LCD.
57		COM 1	
58	INPUT	V_{DD}	Power supply terminal. (4.7V)
59 ~ 62	INPUT	K2 ~ K0	Input terminal for key return signal from external key matrix/Data input from IC902.
63	INPUT	SSL	Electromagnetic field intensity level input is changed from analog to digital.
64	———	INT	Not used in this unit.

■ REPLACEMENT PARTS LIST

Notes:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice:
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
4. The " Ⓢ " mark is service standard parts and may differ from production parts.
5. The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC101	AN7274NS	IC
IC102	AN278	IC
IC301	AN7472S	IC
IC302	MN4066BS	IC
IC901	UPD1714G514	IC
IC902	MN1219	IC
TRANSISTORS		
Q101	2SC1675L1	Transistor
Q102, 301, 703, 705, 706, 708, 711~716	2SC3311-Q	Transistor
Q103, 104, 707, 904	2SA1309-Q	Transistor
Q701, 702, 719	2SC1685-QNC	Transistor
Q704	2SK301-S	Transistor
Q717, 718	2SD1265-O	Transistor
Q902, 903	2SC1815Y	Transistor
Q906,908	2SC3311	Transistor
Q907, 909	2SA722-S	Transistor
DIODES		
D101~104, 202, 203, 301, 302, 304, 711, 712, 716, 717, 720, 906~912, 914~924, 926, 928~931	MA165	Diode
D201	SVDKV1236Z	Diode
D305	MA4082M	Diode
D311	MA4047M	Diode
D701~703 ⚠	1SR35200	Rectifier
D704	MA4062-M	Diode
D705, 706	MA4140M	Diode
D713	LN846RP	L.E.D.
D714, 715, 718	LN446YP	L.E.D.
D901 Ⓢ	MA162A	Diode
D905 [XA] only	MA165	Diode
D925 [XS] only	MA165	Diode
COILS		
L101	ELEPK101KA	L.P.F.
L202	SLA2B1-P	FM Antenna
L203	SL02B7-M	AM OSC
L204, 205	SLQZ12G1-D	Choke
L901, 902	RLQY25S5-0	Choke
TRANSFORMERS		
T101	SLI4B520-Z	FM IFT
T102	SLI4B521-Z	FM IFT
T201	SLI2B103-M	AM IFT
T701 [XL] ⚠	SLT5K216	Power Source
T701 ⚠ [DX, DM, EH]	SLT5K213	Power Source
T701 ⚠ [XA, XS, PA, PE]	SLT5K214	Power Source
CERAMIC FILTERS		
CF101 [XS]	SVFE107ML-A	FM, 10.7MHz (Red)
	SVFE107ML-E	FM, 10.75MHz (White)
CF101 [XA, XL, PA, PE]	SVFE107ML-A	FM, 10.7MHz (Red)
	SVFE107ML-D	FM, 10.65MHz (Black)
CF101 [DX, DM, EH]	SVFE107MZ2-A	FM, 10.7MHz (Red)
	SVFE107MZ2-D	FM, 10.65MHz (Black)
CF102 [XS]	SVFE107MX2-A	FM, 10.7MHz (Red)
	SVFE107MX2-E	FM, 10.75MHz (White)
CF102 Other	SVFE107MX2-A	FM, 10.7MHz (Red)
	SVFE107MX2-D	FM, 10.65MHz (Black)

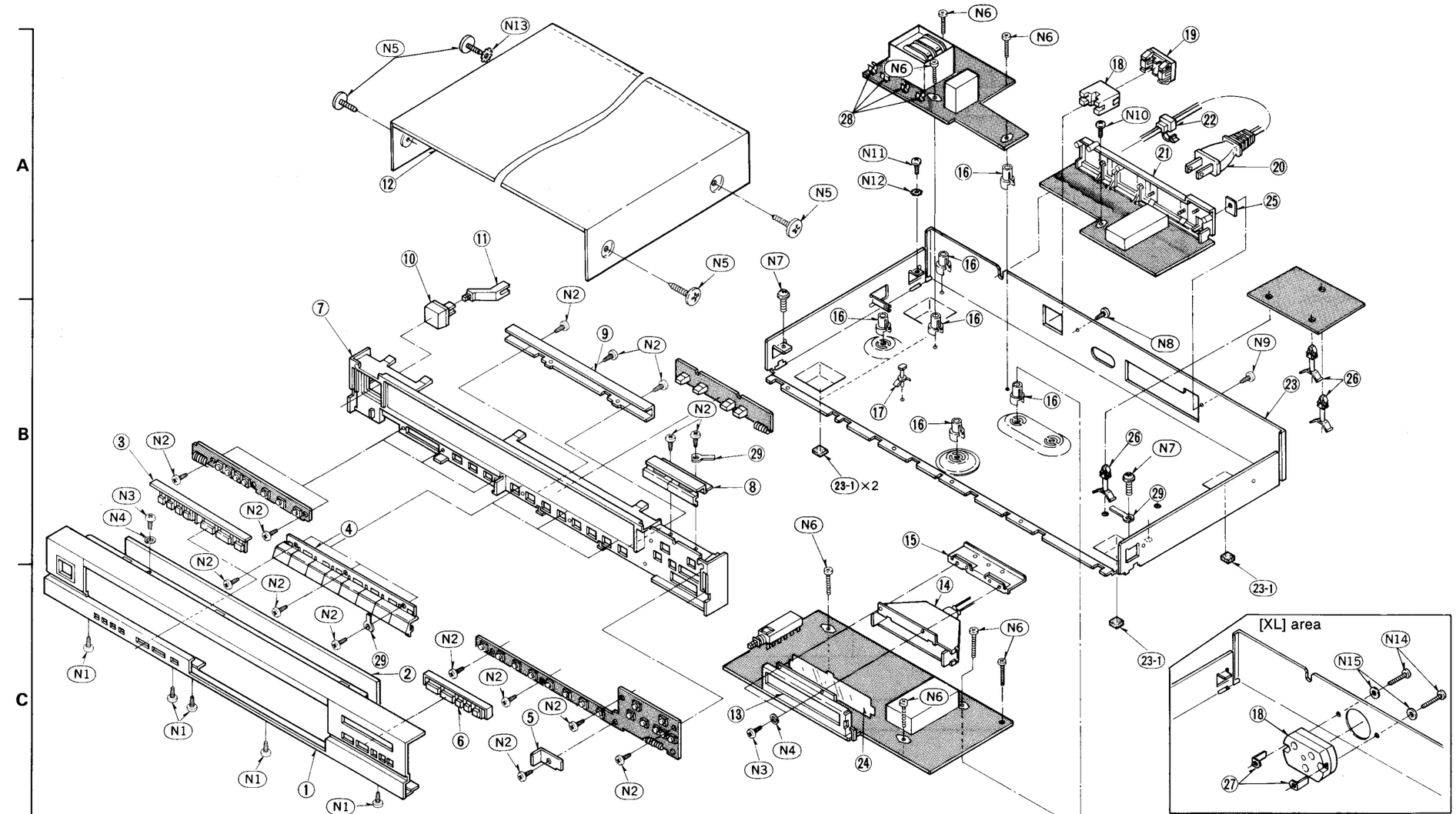
Ref. No.	Part No.	Description
CERAMIC FILTERS		
CF103, 104 [XS]	SVFE107MZ2-A	FM, 10.7MHz (Red)
	SVFE107MZ2-E	FM, 10.75MHz (White)
CF103, 104 Other	SVFE107MX2-A	FM, 10.7MHz (Red)
	SVFE107MX2-D	FM, 10.65MHz (Black)
(Use pair ranks as same as CF101, CF102, CF103 and CF104)		
CF201	SVFSFP450HT	AM, 450kHz
CRYSTAL		
X901	SVQ49U452-T	4.5MHz
VARIABLE RESISTORS		
VR101, 301	EVN58AA00B15	SSL Adj., Separation, 100kΩ (B)
VARIABLE CAPACITORS		
CT201	SVCTZ03T110F	Trimmer
CT901	SVCTZ03R200F	Trimmer
THERMISTERS		
TH101	ERTD2ZHL332S	3.3kΩ
TH103	ERTD2ZHL103S	10kΩ
RELAY		
RLY701 ⚠	SSY123	Timer
FM FRONT END		
[XS]	SNVFE407S04	FM RF
Other	SNVFE407G24	FM RF
LIQUID CRYSTAL DISPLAY		
LCD	SALHLC9196	
LAMP		
PL1	XAMS15S150	9.6V, 0.27A
FUSES		
F1, 2 ⚠	XBA2C04TR0	250V, T400mA
SWITCHES		
S1~24	SSG13	Key-Board
S701 ⚠	SSH1177	Power Source
S702 ⚠ Except [XL]	SSR187-1	Voltage Selector

Ref. No.	Part No.	Description	
CABINET and CHASSIS PARTS			
1 ○	SGWTG6T-SE	Front Panel (Silver Type)	(1)
1 Ⓚ	SGWTG6T-KE	Front Panel (Black Type)	(1)
2 ○	SGU446-5	Transparent Plate (Silver Type)	(1)
2 Ⓚ	SGU446-4	Transparent Plate (Black Type)	(1)
3 ○	SBC690-1	Button, Timer Tuning (Silver Type)	(1)
3 Ⓚ	SBC690	Button, Timer Tuning (Black Type)	(1)
4 ○	SBC726-1A	Button, Preset Tunung (Silver Type)	(1)
4 Ⓚ	SBC726A	Button, Preset Tunung (Black Type)	(1)

Ref. No.	Part No.	Description	
CABINET and CHASSIS PARTS			
5 ○	SGX7733-1	Ornament (Silver Type)	(1)
5 Ⓚ	SGX7733	Ornament (Black Type)	(1)
6 ○	SBC691-1	Button (Silver Type)	(1)
6 Ⓚ	SBC691	Button (Black Type)	(1)
7 ○ [PA, PE]	SGXTG6T-SP	Front Sub Panel (Silver Type)	(1)
7 Other ○	SGXTG6TL-SE	Front Sub Panel (Silver Type)	(1)
7 Ⓚ	SGXTG6TL-KE	Front Sub Panel (Black Type)	(1)
8 ○	SBC692-1A	Button, Band Selector (Silver Type)	(1)
8 Ⓚ	SBC692A	Button, Band Selector (Black Type)	(1)
9	SUW2918	Bracket	(1)
10	SBC666	Button, Power Source	(1)
11	SUB201	Connection Rod	(1)
12 ○	SKCTG6TL-SE	Cabinet (Silver Type)	(1)
12 Ⓚ	SKCTG6TL-KE	Cabinet (Black Type)	(1)
13	SHR9736	Holder, LCD	(1)
14	SMPTG6T-KN	Lamp Case	(1)
15	SUW2904	Bracket	(1)
16	SHE181	Spacer, P.C.B.	(6)
17	SHR9748	Holder	(1)
18 [DM] ⚠	SJS9311	Socket, AC Outlet	(1)
18 [XL] ⚠	SJS9319	Socket, AC Outlet	(1)
18 ⚠ [DX, EH]	SJS9309	Socket, AC Outlet	(1)
18 ⚠ [XA, XS, PA, PE]	SJS9232B	Socket, AC Outlet	(1)
19 [XA, XS, PA, PE] only	SJS9232A	Socket Cover, AC Outlet	(1)
20 [DM] ⚠	SJA97	AC Cord	(1)
20 ⚠ [DX, EH]	SJA103-1	AC Cord	(1)
20 [XL] ⚠	QFC1207MA	AC Cord	(1)
20 [XA, ⚠ XS, PA, PE] only	RJA52Y	AC Cord	(1)
21 [DX, DM, EH]	SJF8509-1N	Terminal Board	(1)
21 [XA, XS, XL, PA, PE]	SJF8614N	Terminal Board	(1)
22 [DM]	SHR127	Bushing	(1)
22 [DX, EH, XL]	SHR131	Bushing	(1)
22 [XA, XS, PA, PE]	RHR111	Bushing	(1)
23 [DX]	SGPTG6T-SD	Rear Panel	(1)
23 [DM]	SGPTG6T-SD1	Rear Panel	(1)
23 [EH]	SGPTG6T-SH	Rear Panel	(1)
23 [XL]	SGPTG6T-SL	Rear Panel	(1)
23 [XA, XS, PA, PE]	SGPTG6T-SX	Rear Panel	(1)
23-1	SKL293	Foot	(4)
24	SDU267	Filter	(1)
25 [XL] only	SHP9365	Spacer	(1)
26	SHR9693	Holder, P.C.B.	(3)
27 [XL] only	SUW2968	Bracket	(2)
28	SJT347	Fuse Holder	(4)
29	SJT231	Terminal	(2)

■ EXPLODED VIEW

Ref. No.	Part No.	Description	
SCREWS and WASHERS			
N1		XTB3+8FFZ	Tapping, ⊕3×8 (5)
N2		XTB3+8GFZ	Tapping, ⊕3×8 (13)
N3	Ⓢ	XSN3+6S	⊕3×6 (3)
N4	Ⓢ	XWA3B	Washer, φ3 (3)
N5	○	SNE2095−4	Cabinet (Silver Type) (4)
N5	Ⓚ	SNE2095−5	Cabinet (Black Type) (4)
N6		XTBS3+20F1	Tapping, ⊕3×20 (7)
N7		XTW3+8TFR	Tapping with Washer (2)
N8		XTB3+8GFZ	Tapping, ⊕3×8 (1)
N9 [XL] only		XTBS3+8FFZ	Tapping, ⊕3×8 (1)
N9 Other		XTBS3+8JFZ1	Tapping, ⊕3×8 (1)
N10		XTBS3+12F1	Tapping, ⊕3×12 (1)
N11 [DX, EH] only		XYA3+EB8	Tapping, ⊕3×8 (1)
N12 [DX, EH] only	Ⓢ	XWC3B	Externed Toothed Lock, φ3 (1)
N13 [DX, EH, XL] only	Ⓢ	XWC3B	Externed Toothed Lock, φ3 (1)
N14 [XL] only	Ⓢ	XSN3+20FZS	⊕3×20 (2)
N15 [XL] only	Ⓢ	XWA3BFZ	Spring, φ3 (2)
ACCESSORIES			
A1		SJP2129−5	Cord, Pin Type (1)
A2 [DX, DM, EH]		SSA270	FM Antenna Cord (1)
A2 Other		SSA267−1	FM Antenna Cord (1)
A3 [XA, ⚠ XS, PA, PE] only		SJP9215	Plug Adaptor (1)
A4		SSA902−4	Loop Antenna (1)
A5		SMA231	Holder (1)
A6		SMA233−1	Holder (1)
A7		XTN3+10AFZ	Screw (2)
A8 [PA, PE]		SQF12418	Instruction Book (1)
A8 Other		SQF12419	Instruction Book (1)
PACKING PARTS			
P1		XZB24X40C05	Polyethylene Bag (1)
P2	○	SPP697	Polyethylene Bag (Silver Type) (1)
P2	Ⓚ	SPP725	Polyethylene Bag (Black Type) (1)
P3 [XA, XS, PA, PE] only		SPS4550	Pad, Front Side (1)
P3 Other		SPS4550−3	Pad, Front Side (1)
P4 [XA, XS, PA, PE] only		SPS4551−2	Pad, Rear Side (1)
P4 Other		SPS4551−3	Pad, Rear Side (1)
P5		SPS4552	Pad, Upper (1)
P6		SPS4563	Pad, Corner (2)
P7 [XA, XS, PA, PE] only		SPG5287	Carton Box (1)
P7 Other		SPG5288	Carton Box (1)
P8	○	SGK1411	Label (Silver Type Only) (2)



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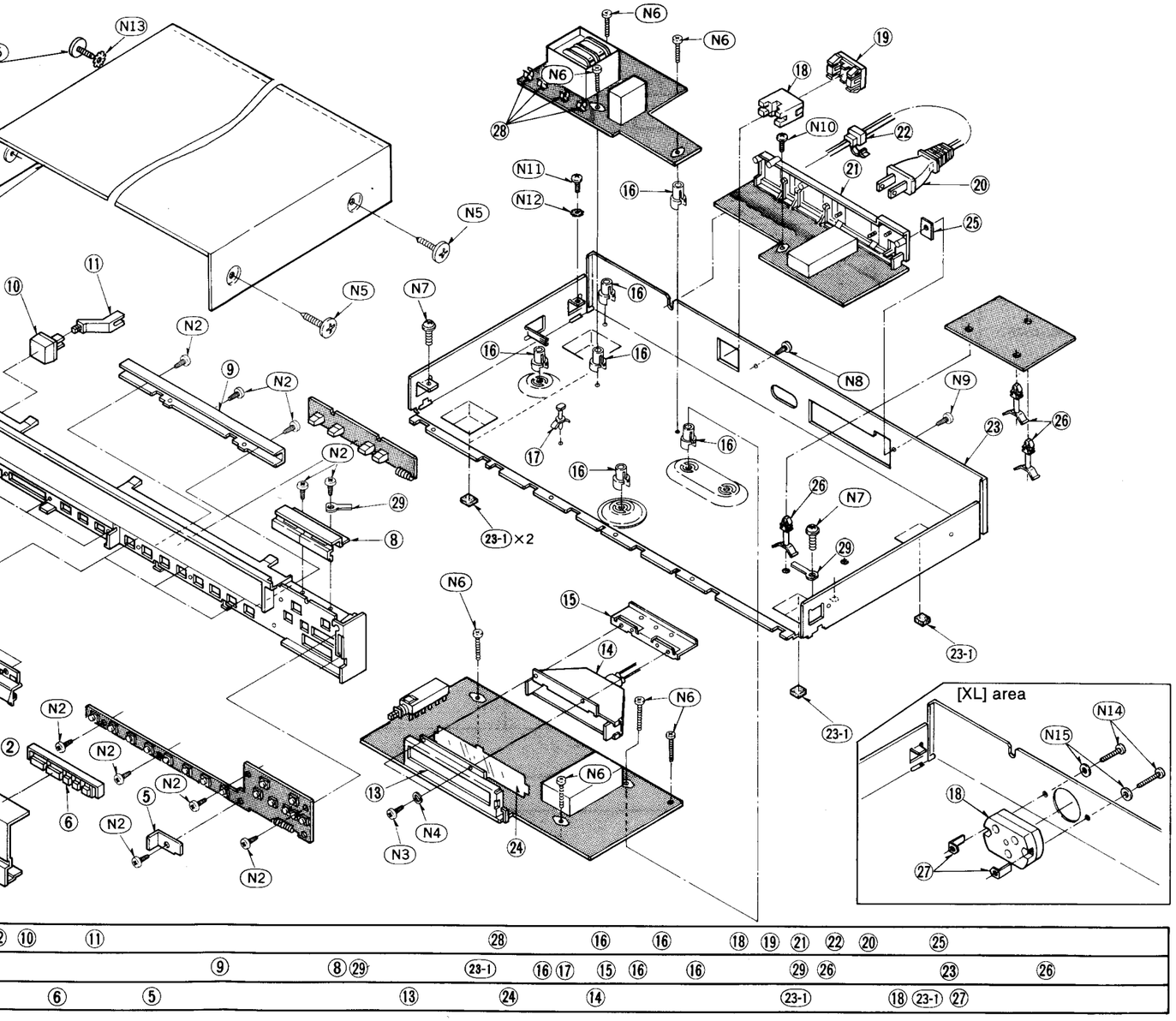
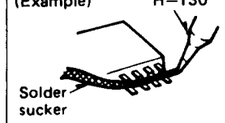
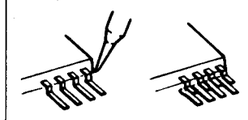
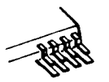


■ HOW TO REPLACE IC'S (Small outline type)

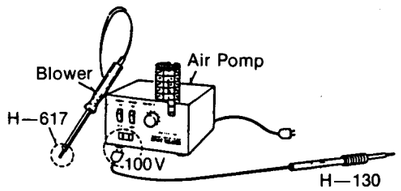
	Replacing procedure		Cautions
1	Reduce the amount of solder on each pin of the integrated circuit by use of a solder sucker.	(Example) H—130 	● **Recommended tool** .....Special soldering iron *H605M and H—130. *H605E and H—130. ● Do not touch the soldering iron to the area for a long time. It may otherwise cause removal of the print foil. ● When shifting the pin upward, do the job quickly while the solder is melting. If the solder is hard, it may cause removal or breakage of the print foil. ● When using a pencil type soldering iron. 1. Completely remove the solder from each IC pin by use of solder sucker. 2. Raise each pin by means of an eyeleteer, hold the pliers then remove IC package from P.C.B.
2	Melt the solder on the pin (one electrode) with the soldering iron.		
3	While the solder is melting, shift the pin upward by the soldering iron to remove it from the foil.		
4	Remove each pin from the foil according to the above-mentioned procedure.		

*** Special soldering iron**
(Refer to Technical Information, ORDER NO. GAD84125486T1)...For U.S.A. and Canada
(Refer to Technical Information, ORDER NO. GAD84115476T8)...For others

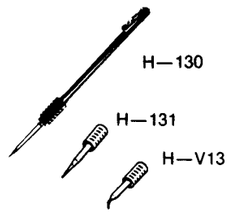
● H—605 Spot Heater (hot-air solder iron)

This device that uses hot air to melt solder was developed to remove Flat-Pakage ICs, RHCs and chip parts.

- H—605M (For 120V power source)
- H—605E (For 200V/220V/240V power source)



H—617



● H—617 Twin Nozzle (for spot heater)

Special nozzle for the removal of RHCs and chip resistors.
(Nozzle diameter : 1.0 mm x 2)

● H—130 Slim Pencil Solder Iron

An ultrasmall ceramic heater solder iron is extremely handy for soldering chip parts, RHCs, ICs, etc., to high-density circuit boards.

Features:

- Rated power: 100V, 15W
- Max. temp.: 400°C
- Heater: ceramic (long life)
- Insulation resistance: 100MΩ
- Length: 178 mm
- Weight: 16 g (not including cord)

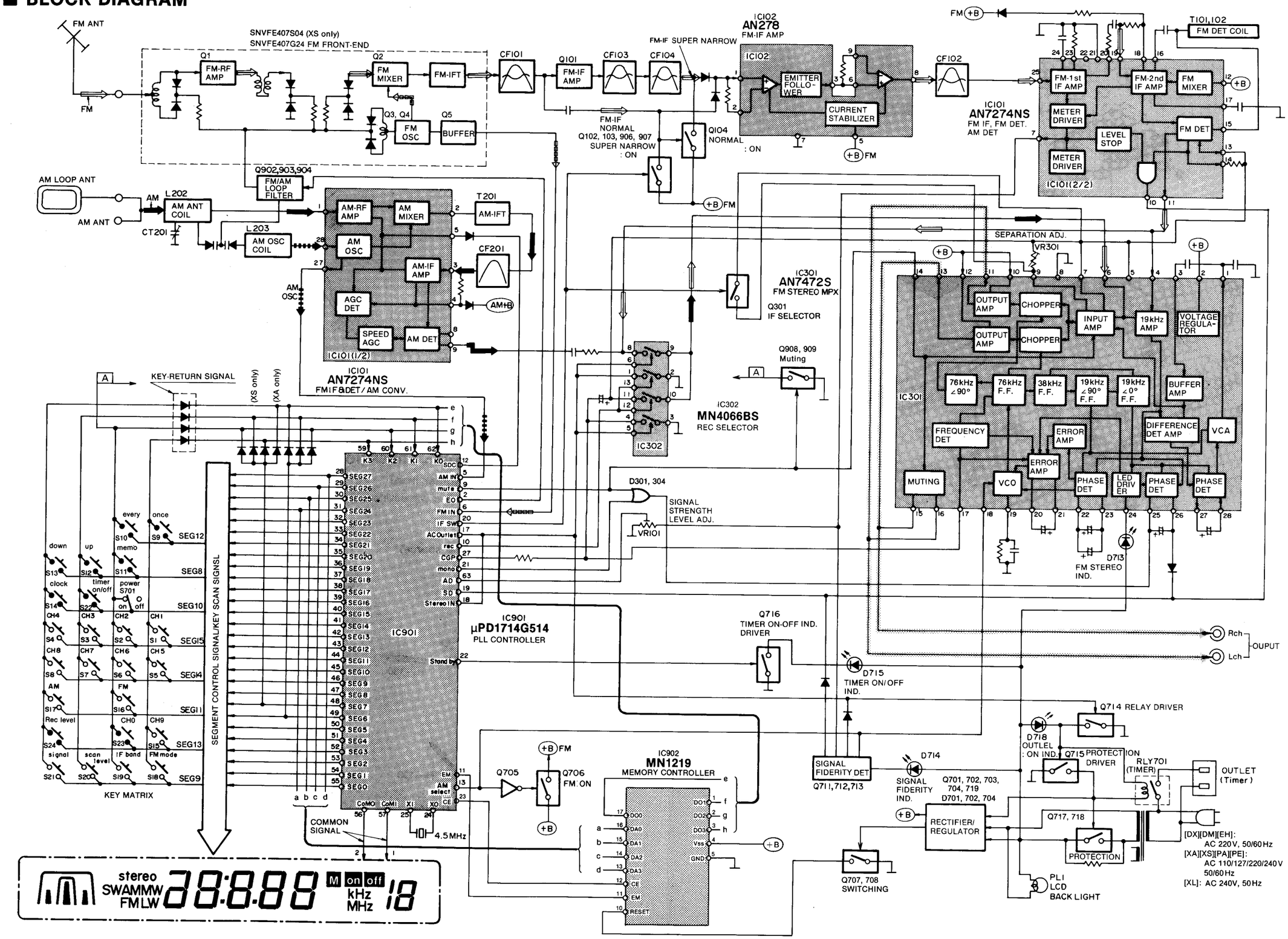
● H—131, H—V13 Cap Bits

Solder tip for the slim pencil Solder Iron and is composed of a bit holder and a corrosion resistance solder tip.
Permits changing of solder tips even while still hot.

- Solder tip: 0.3 mm

ST-G6T ST-G6T

■ BLOCK DIAGRAM



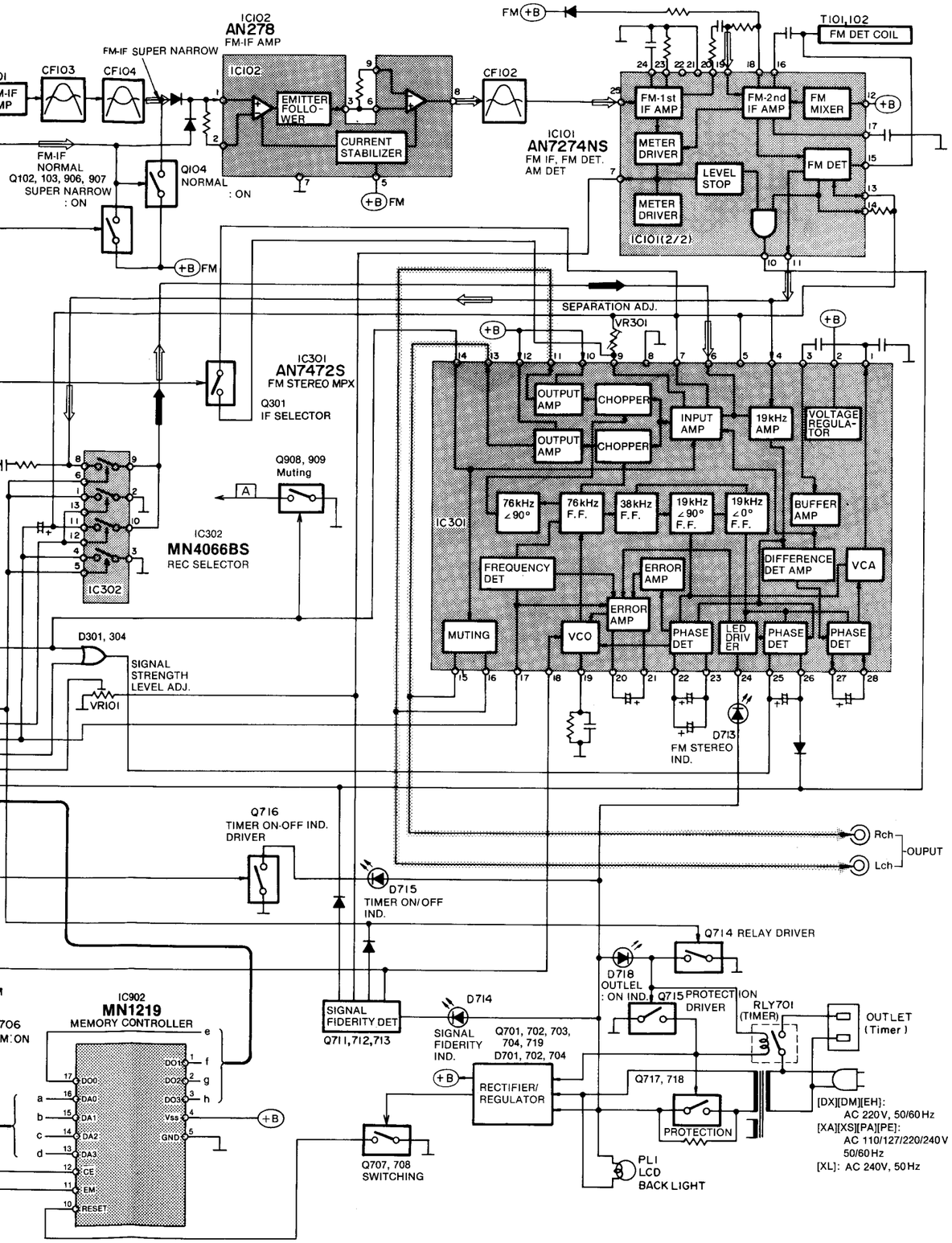
*** Caution**
IC and LSI a
Secondary tr
* Cover the p
* Ground the
* Put a condu
* Do not tou

❶ IC901

❷ IC901

❸ IC901

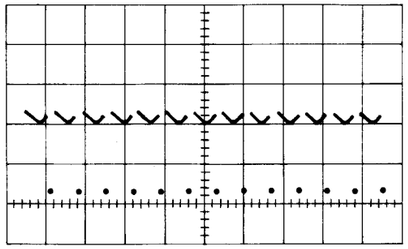
❹ IC901



*** Caution !**

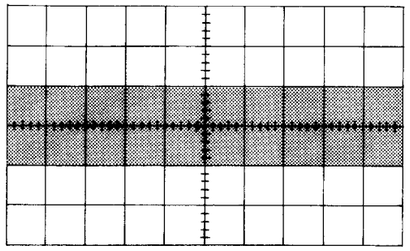
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
* Cover the parts boxes made of plastics with aluminum foil.
* Ground the soldering iron.
* Put a conductive mat on the work table.
* Do not touch the legs of IC or LSI with the fingers directly.

❶ IC901 Pin No. ③ (FM or AM to "AUTO SCAN" mode)



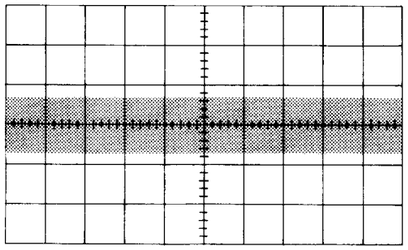
0.5V DC/DIV, 0.2m sec/cm

❷ IC901 Pin No. ㉔



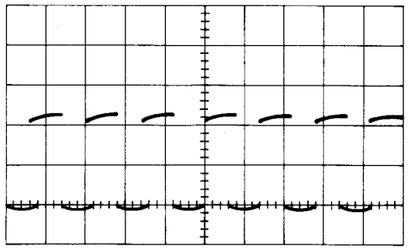
1V AC/DIV, 0.1m sec/cm

❸ IC901 Pin No. ㉕



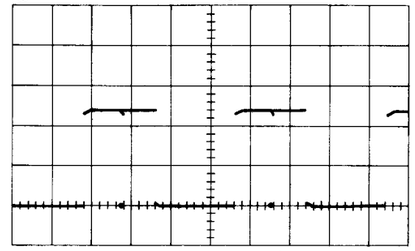
1V AC/DIV, 0.1m sec/cm

❹ IC901 Pin No. ㉗



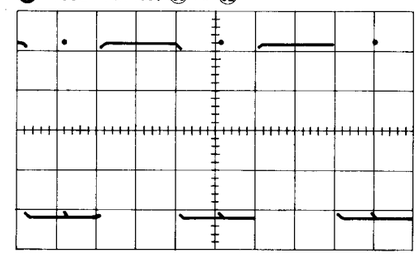
2V DC/DIV, 5m sec/cm

❺ IC901 Pin No. ㉘ ~ ㉙



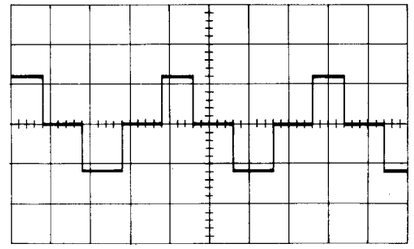
2V DC/DIV, 5m sec/cm

❼ IC901 Pin No. ㊾ ~ ㊷



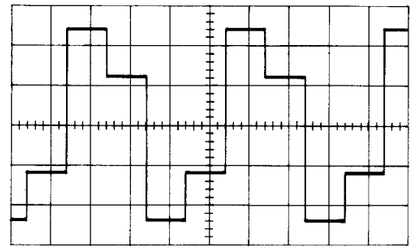
2V AC/DIV, 5m sec/cm

❻ IC901 Pin No. ㊻, ㊼



2V AC/DIV, 5m sec/cm

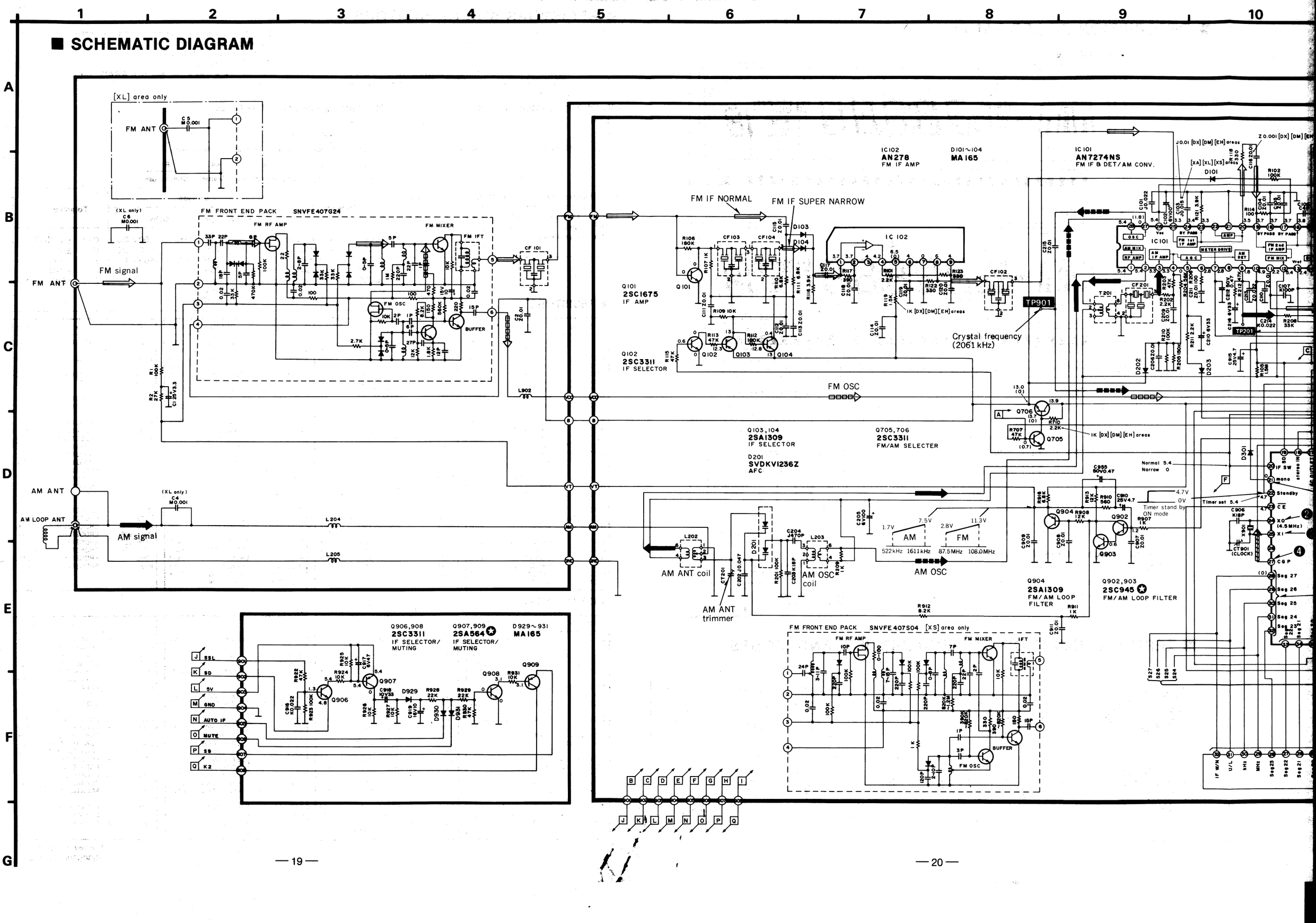
❽ Segment ON (LCD)

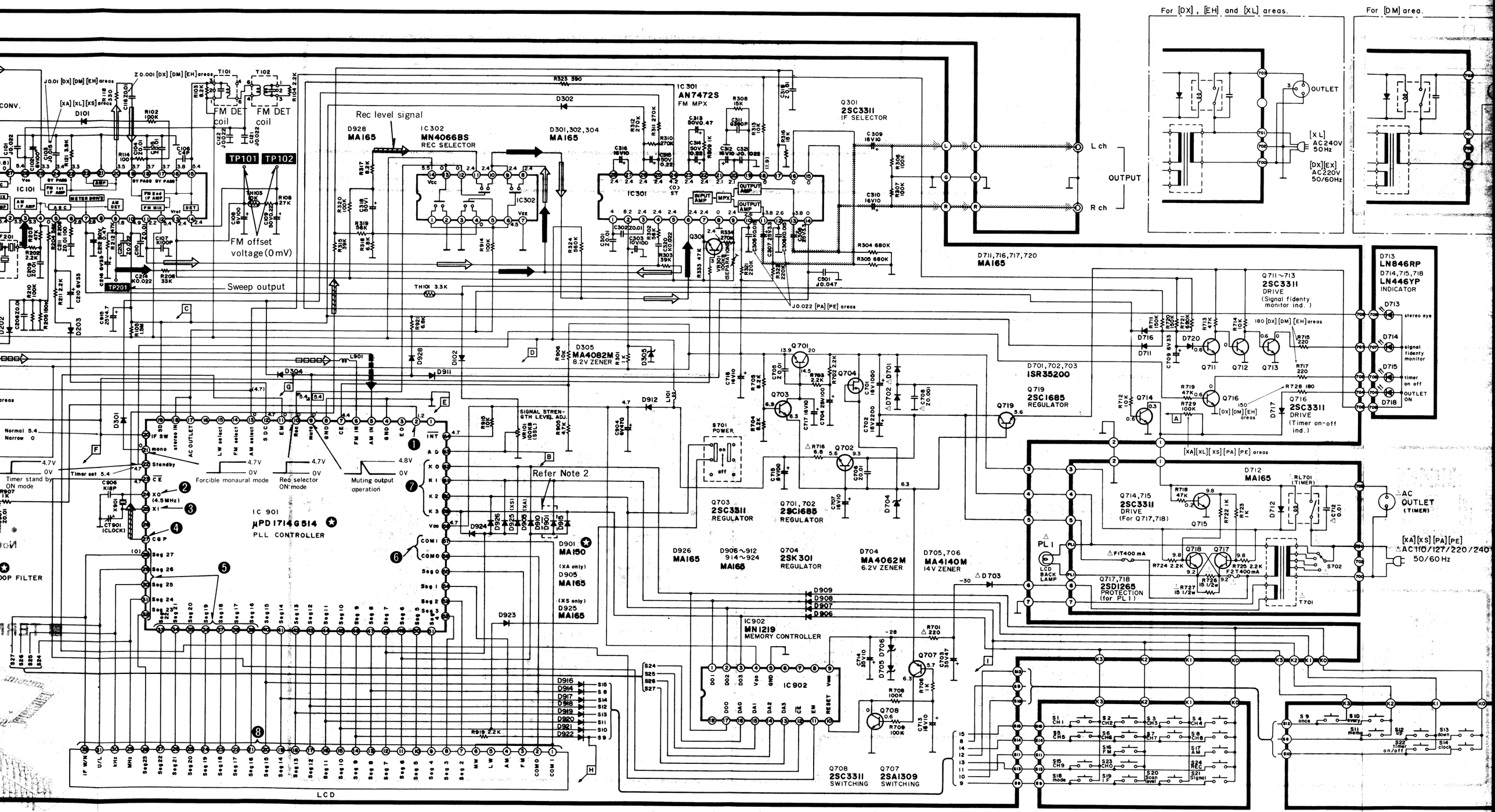


2V AC/DIV, 5m sec/cm

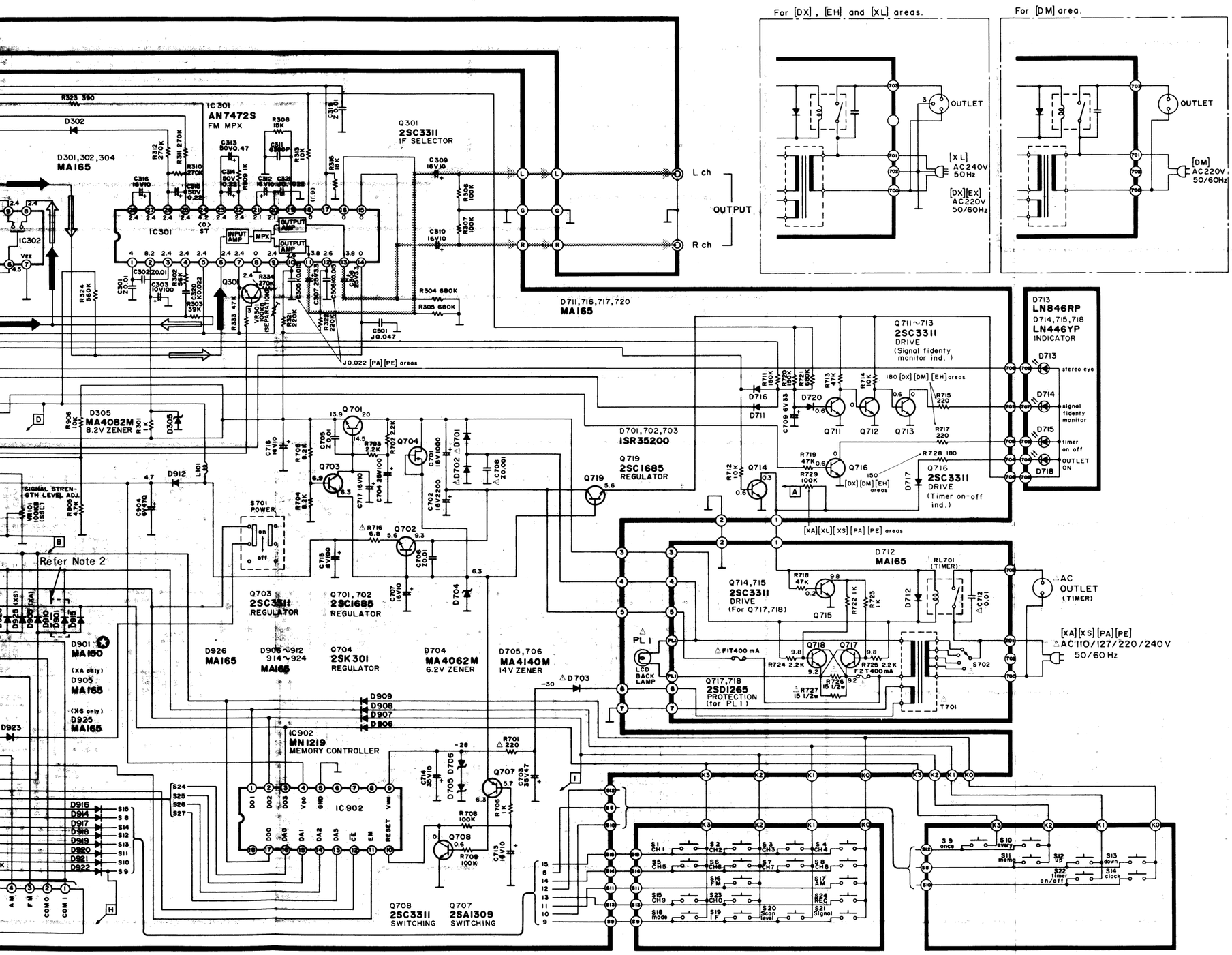
Please refer to 27 page for each segment waveform measuring method.

■ SCHEMATIC DIAGRAM




For [DX], [EH] and [XL] areas.
For [DM] area.
OUTLET
[XL] AC240V 50Hz
[DX][EX] AC220V 50/60Hz
L ch
R ch
OUTPUT
IC101
AN7472S FM MPX
Q301 2SC3311 IF SELECTOR
IC302 MN4066BS REC SELECTOR
D928 MA165
D301,302,304 MA165
D302
Rec level signal
FM DET coil
FM DET coil
TP101 TP102
FM offset voltage (0mV)
Sweep output
TH103 50K
TH101 3.3K
D305 MA4082M 8.2V ZENER
D701,702,703 ISR35200
Q719 2SC1685 REGULATOR
Q701~713 2SC3311 DRIVE (Signal fidenty monitor ind.)
D713 LN846RP
D714,715,718 LN446YP INDICATOR
stereo eye
signal fidenty monitor
timer on off
OUTLET ON
Q716 2SC3311 DRIVE (Timer on-off ind.)
Q714,715 2SC3311 DRIVE (For Q717,718)
D712 MA165
RL701 (TIMER)
AC OUTLET (TIMER)
PL1
LCD BACK LAMP
Q717,718 2SD1265 PROTECTION (for PL1)
FIT400mA
T701
[XA][XL][XS][PA][PE] areas
[XA][XS][PA][PE] AC110/127/220/240V 50/60Hz
Q703 2SC3311 REGULATOR
Q701,702 2SC1685 REGULATOR
Q704 2SK301 REGULATOR
D704 MA4062M 6.2V ZENER
D705,706 MA4140M 14V ZENER
D926 MA165
D906~912 914~924 MA165
D901 MA150
(XA only) D905 MA165
(XS only) D925 MA165
IC 901 μPD1714G514 PLL CONTROLLER
IC902 MN1219 MEMORY CONTROLLER
Q708 2SC3311 SWITCHING
Q707 2SA1309 SWITCHING
Refer Note 2
Timer stand by ON mode
Forcible monaural mode
Rec selector ON mode
Muting output operation
LCD
LOOP FILTER
SIGNAL STRENGTH LEVEL ADJ.
POWER
Normal 5.4
Narrow 0

13 14 15 16 17 18 19



■ SCHEMATIC DIAGRAM

* The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with ✪ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement part, please use the part No. in the replacement part list.

Note 1:

1. **S1 ~ S8, S15, S23** : Preset tuning switch.
   S1 — CH1 S4 — CH4 S7 — CH7 S23 — CH0
   S2 — CH2 S5 — CH5 S8 — CH8
   S3 — CH3 S6 — CH6 S15 — CH9
   * To preset channels 1 through 9: Press the button 1 to 9 momentarily.
   * To preset channels 10 through 19: Press the button 1 and the second digit (0 ~ 9).
   * To preset channels 20 through 29: Press the button 2 and the second digit (0 ~ 9).
   * To preset channels 30 through 39: Press the button 3 and the second digit (0 ~ 9).
2. **S9, S10** : Timer-set switch.
   S9 — once
   S10 — every
3. **S11** : Memory switch/Time-set switch.
4. **S12** : Tuning switch/Minute switch. (up — turning to higher frequency)
5. **S13** : Tuning switch/Hour switch. (down — tuning to lower frequency)
6. **S14** : Time display switch.
7. **S16, S17** : Band selector switch. S16 — FM, S17 — AM
8. **S18** : FM mode selector switch. auto ⟷ mono
9. **S19** : FM IF band selector switch. normal ⟷ super narrow
10. **S20** : Scan level selector switch.
11. **S21** : FM signal-strength indication switch.
12. **S22** : Timer ON/OFF selector switch. on ⟷ off
13. **S24** : Recording level check switch. on ⟷ off
14. **S701** : Power switch in **"on"** position.
15. **S702** : Voltage selector switch in **"240V"** position. (XS, XA, PA and PE areas)
16. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
    * Figures in [ ] stand for DC voltage in Muting **"on"** mode.
    * Figures in ( ) stand for DC voltage in AM signal reception mode.
    * Figures in ⌜ ⌟ stand for DC voltage in Rec selector switch **"on"** mode.

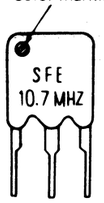
    Positive voltage lines. AF signal.
    FM signal FM OSC Rec level signal
    AM signal AM OSC
17. Important safety notice. Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Note 2:

● Use of ceramic filters in pairs

The ceramic filters (CF101 ~ CF104) for FM-IF circuit are available in two ranks. For this machine, be sure to use the ceramics of the same rank in a pair. At repairing and replacement, pay close attention to the diode (D901) for use as different diode must be used depending on each rank of the ceramic filters.

Color marking

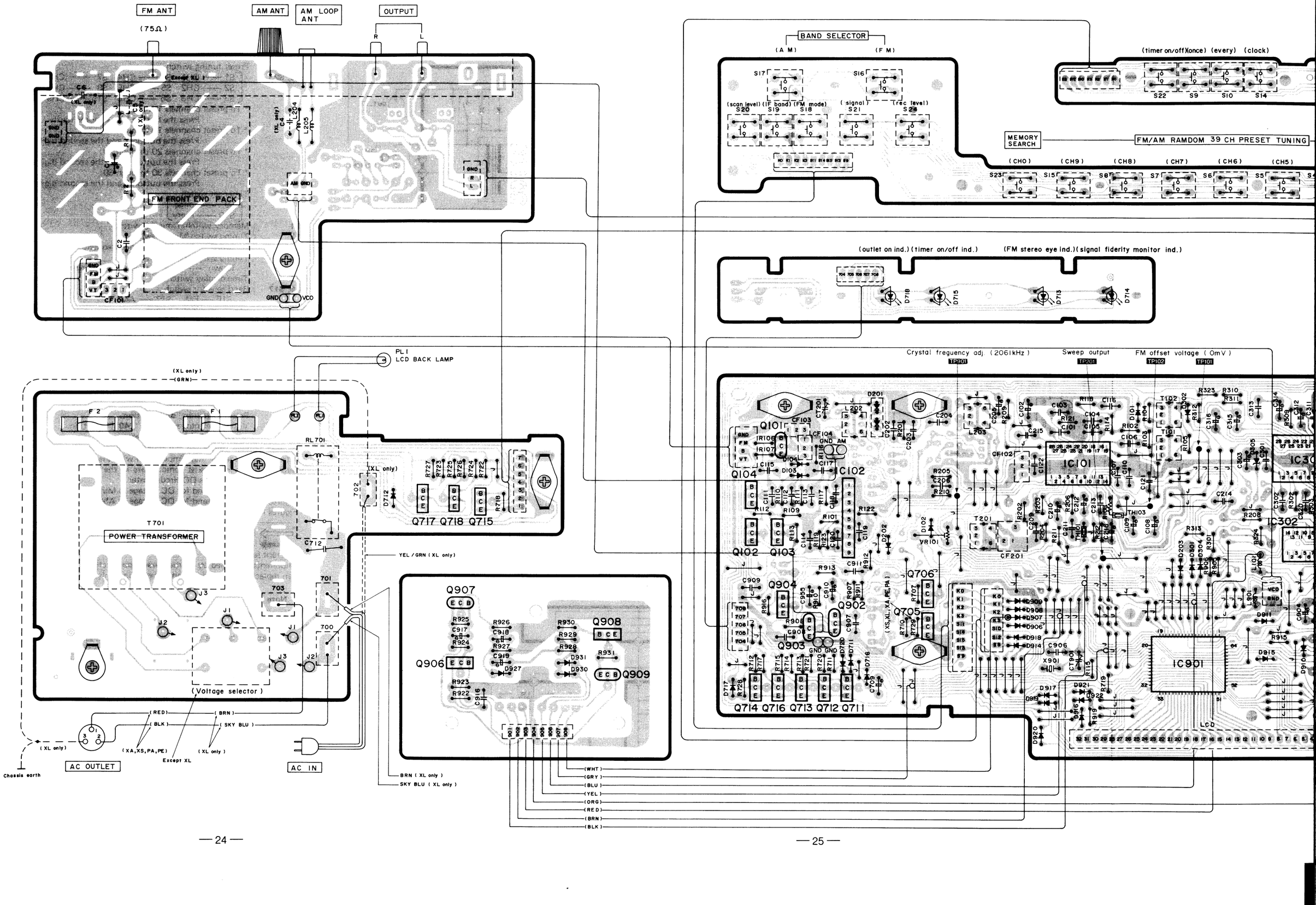


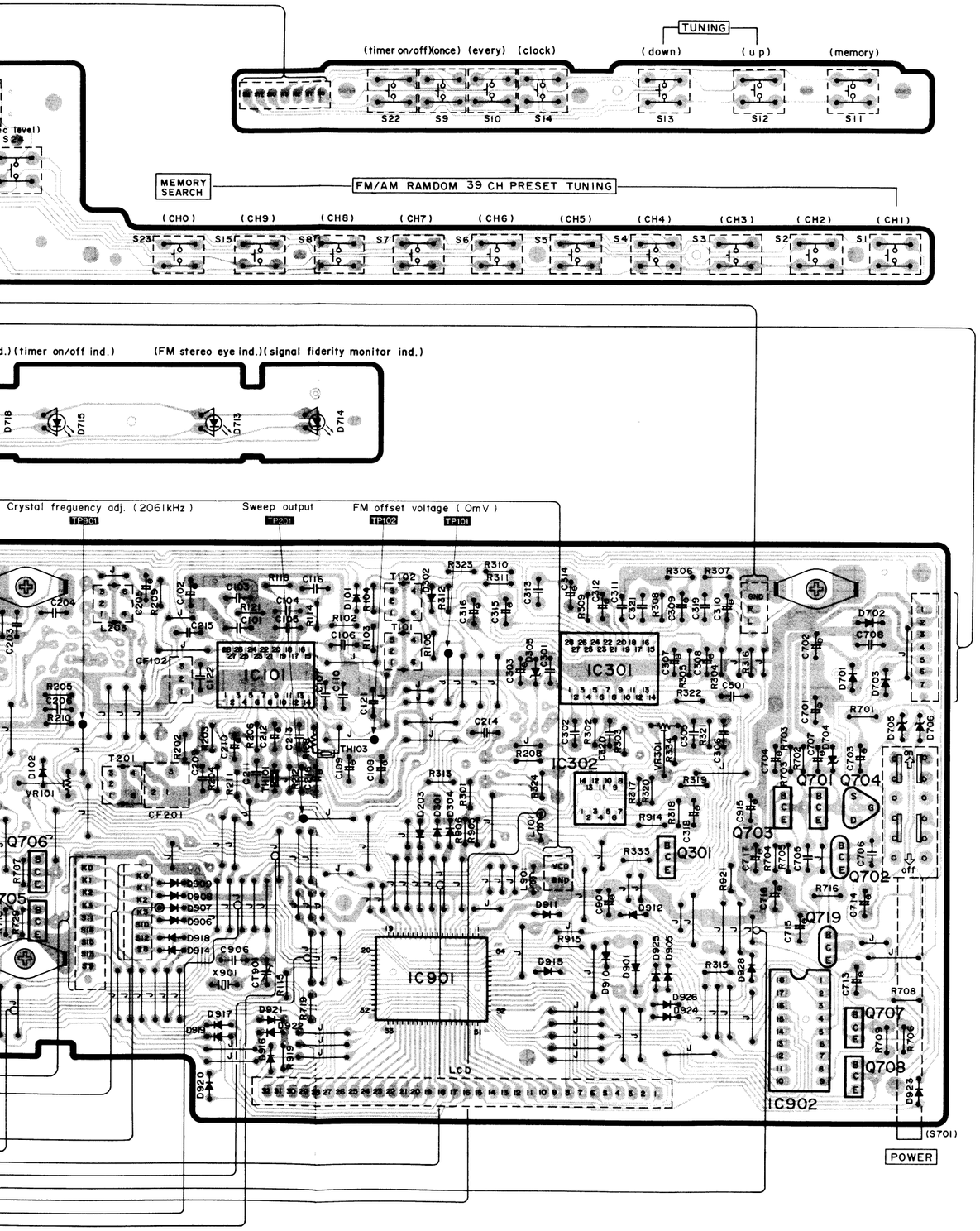
RANK (Color)	D901 Except [XS]	D901 [XS]	CENTER FREQUENCY
Red	X	X	10.70 MHz
Black	○		10.65 MHz
White		○	10.76 MHz

Note: ○ mark : Diode is used.
X mark : Diode is not used.

ST-G6T ST-G6T

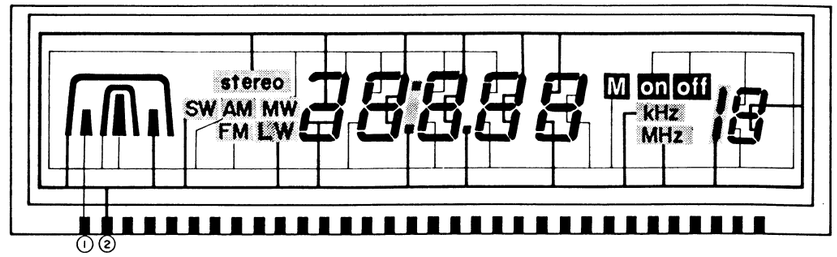
■ CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



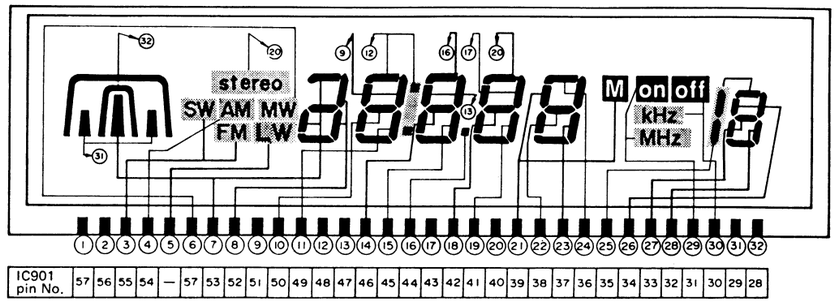


■ DESCRIPTION OF LCD PANEL

- **COMMON**



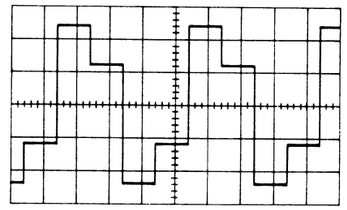
- **SEGMENT**



IC901 pin No.	57	56	55	54	—	57	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28

< Segment ON >

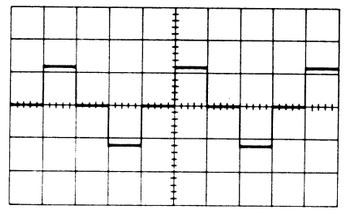
Pin ① or ② of LCD and each segment terminal.



2V AC/DIV, 5m sec/cm

< Segment OFF >

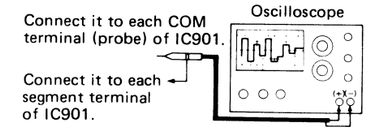
Pin ① or ② of LCD and each segment terminal.



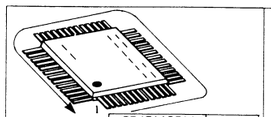
2V AC/DIV, 5m sec/cm

- **Each segment waveform measuring method**

Note: Potential difference from COM terminal waveform is measured for each segment output waveform. So, do not connect the earth to other equipment on the oscilloscope side.
If the earth is connected, IC901 will break down.



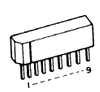
■ TERMINAL GUIDE OF TRANSISTORS, IC'S AND DIODES



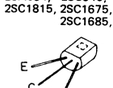
μPD1714G514 64 pin

AN7274NS	28 pin
AN7472S	
MN4066BS	14 pin

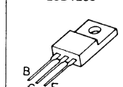
AN278



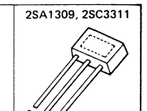
2SA564, 2SC945, 2SC1815, 2SC1675, 2SC1685,

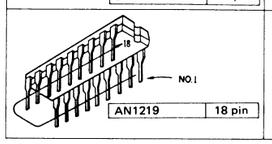


2SD1265



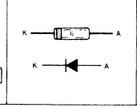
2SA1309, 2SC3311



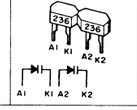


AN1219 18 pin

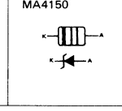
MA150, MA165



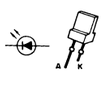
SVDKV1236Z



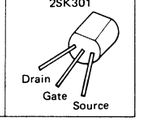
MA4062, MA4082, MA4150



LN846RP, LN446YP

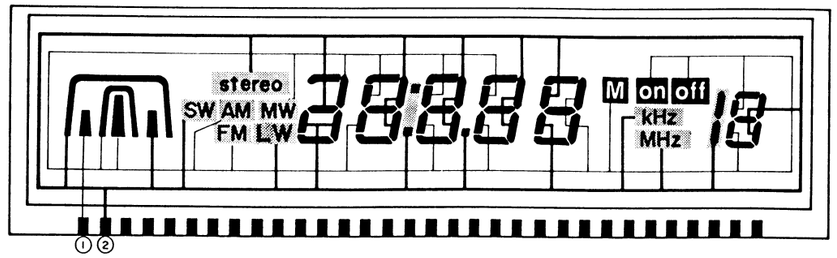


2SK301

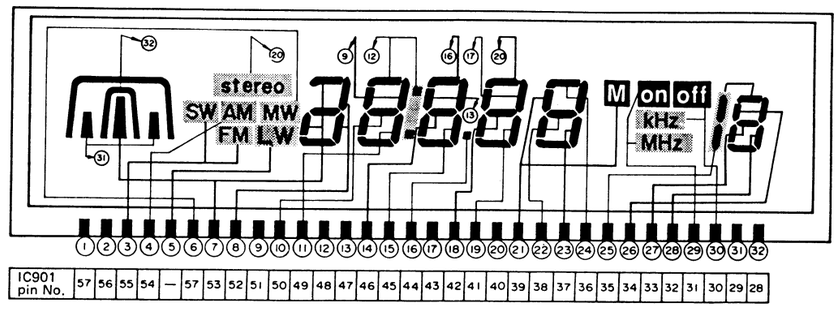


■ DESCRIPTION OF LCD PANEL

• **COMMON**



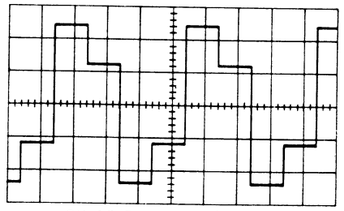
• **SEGMENT**



IC901 pin No.	57	56	55	54	—	57	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28

< Segment ON >

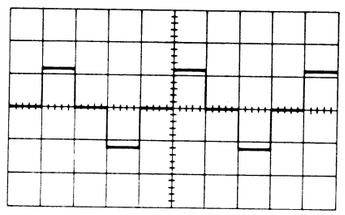
Pin ① or ② of LCD and each segment terminal.



2V AC/DIV, 5m sec/cm

< Segment OFF >

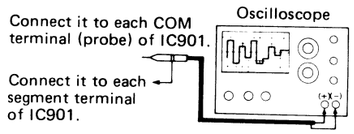
Pin ① or ② of LCD and each segment terminal.



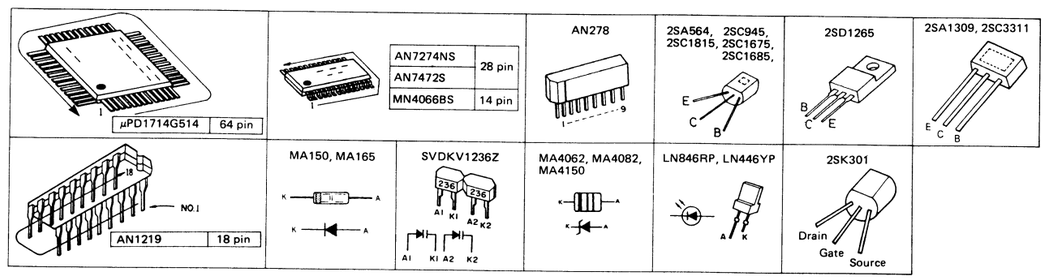
2V AC/DIV, 5m sec/cm

• **Each segment waveform measuring method**

Note: Potential difference from COM terminal waveform is measured for each segment output waveform. So, do not connect the earth to other equipment on the oscilloscope side.
If the earth is connected, IC901 will break down.



■ TERMINAL GUIDE OF TRANSISTORS, IC'S AND DIODES



■ RESISTORS AND CAPACITORS

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice. Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. The " Ⓢ " mark is service standard parts and may differ from production parts.
4. The unit of resistance is OHM (Ω). K = 1000Ω M = 1000kΩ
5. The unit of capacitance is MICROFARAD (μF) P = 10^{-6} μF

Numbering System of Resistor

Example

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Toterance
ERD : Carbon	25 : 1/4W	F : ± 1%
ERC : Solid	S2 : 1/4W	J : ± 5%
ERO : Metal Film	S1 : 1/2W	K : ± 1%
	12 : 1/2W	

Numbering System of Capacitor

Example

ECKD	1H	102	Z	F
Type	Voltage	Value	Tolerance	Peculiarity

ECEA	50	M	R47	R
Type	Voltage	Peculiarity use	Value	Special use

Capacitor Type	Voltage: ECEA Type	Voltage: Other	Tolerance
ECEA : Electrolytic	0J : 6.3V	1H : 50V DC	C : ± 0.25pF
ECCD : Ceramic	1A : 10V	1 : 125V DC	G : ± 2%
ECKD : Ceramic	1C : 16V	KC : 400V AC	J : ± 5%
ECQM : Polyester	1E : 25V		K : ± 10%
ECQP : Polypropylene	1H : 50V		Z : +80%, −20%
	1V : 35V		
	25 : 25V		

• RESISTORS

Ref. No.	Part No.	Value
R1	ERDS2TJ104	100K
R2	ERDS2TJ273	27K
R101	ERDS2TJ222	2.2K
R102	ERDS2TJ104	100K
R103	ERDS2TJ822	8.2K
R104	ERDS2TJ222	2.2K
R105	ERDS2TJ155	1.5M
R106	ERDS2TJ184	180K
R107	ERDS2TJ102	1K
R108	ERDS2TJ273	27K
R109	ERDS2TJ103	10K
R110, 111	ERDS2TJ682	6.8K
R112	ERDS2TJ104	100K
R113	ERDS2TJ473	47K
R114	ERDS2TJ101	100
R115	ERDS2TJ473	47K
R116	ERDS2TJ392	3.9K
R117	ERDS2TJ391	390
R118	ERDS2TJ331	330
R119 [DX, DM, EH]	ERDS2TJ102	1K
R119 Other	ERDS2TJ152	1.5K
R121	ERDS2TJ392	3.9K
R122, 123	ERDS2TJ331	330
R201	ERDS2TJ104	100K
R202	ERDS2TJ222	2.2K
R203	ERDS2TJ473	47K
R204	ERDS2TJ563	56K

Ref. No.	Part No.	Value
R205	ERDS2TJ154	150K
R206	ERDS2TJ101	100
R208	ERDS2TJ333	33K
R209	ERDS2TJ102	1K
R210	ERDS2TJ104	100K
R211	ERDS2TJ222	2.2K
R212	ERDS2TJ473	47K
R301	ERDS2TJ102	1K
R302	ERDS2TJ563	56K
R303	ERDS2TJ393	39K
R304, 305	ERDS2TJ684	680K
R306, 307	ERDS2TJ104	100K
R308	ERDS2TKF1502	15K
R309	ERDS2TJ102	1K
R310, 311	ERDS2TJ274	270K
R312	ERDS2TJ274	270K
R313	ERDS2TJ103	10K
R315	ERDS2TJ393	39K
R316	ERDS2TJ183	18K
R317	ERDS2TJ822	8.2K
R318	ERDS2TJ682	6.8K
R319	ERDS2TJ563	56K
R320	ERDS2TJ104	100K
R321, 322	ERDS2TJ224	220K
R323	ERDS2TJ391	390
R324	ERDS2TJ564	560K
R333	ERDS2TJ473	47K
R334	ERDS2TJ274	270K
R701 ⚠ Ⓢ	ERD25FJ221	220

Ref. No.	Part No.	Value
R702, 703	ERDS2TJ222	2.2K
R704, 705	ERDS2TJ822	8.2K
R706	ERDS2TJ102	1K
R707	ERDS2TJ473	47K
R708, 709	ERDS2TJ104	100K
R710 [DX, DM, EH] only	ERDS1FJ102	1K
R710 Other	ERDS1FJ222	2.2K
R711	ERDS2TJ154	150K
R712	ERDS2TJ103	10K
R713	ERDS2TJ473	47K
R714	ERDS2TJ103	10K
R715 [DX, DM, EH]	ERDS2TJ181	180
R715 Other	ERDS2TJ221	220
R716 Ⓢ	ERD25FJ6R8	6.8
R717 [DX, DM, EH]	ERDS2TJ181	180
R717 Other	ERDS2TJ221	220
R718, 719	ERDS2TJ473	47K
R720	ERDS2TJ154	150K
R721	ERDS2TJ684	680K
R722, 723	ERDS2TJ102	1K
R724, 725	ERDS2TJ222	2.2K
R726, 727 ⚠	ERDS1FJ150	15

Ref. No.	Part No.	Value
R728 [DX, DM, EH]	ERDS2TJ151	150
R728 Other	ERDS2TJ181	180
R729 [XA, XL, XS, PA, PE] only	ERDS2TJ104	100K
R905	ERDS2TJ472	4.7K
R906	ERDS2TJ103	10K
R907	ERDS2TJ102	1K
R908	ERDS2TJ123	12K
R910	ERDS2TJ561	560
R911	ERDS2TJ102	1K
R912	ERDS2TJ822	8.2K
R913	ERDS2TJ123	12K
R914	ERDS2TJ104	100K
R915	ERDS2TJ103	10K
R916	ERDS2TJ682	6.8K
R919	ERDS2TJ222	2.2K
R921	ERDS2TJ682	6.8K
R922	ERDS2TJ473	47K
R923	ERDS2TJ104	100K
R924, 925	ERDS2TJ103	10K
R926, 927	ERDS2TJ103	10K
R928, 929	ERDS2TJ223	22K
R930	ERDS2TJ473	47K
R931	ERDS2TJ103	10K

• CAPACITORS

Ref. No.	Part No.	Value
C1	ECEA1EU3R3	3.3
C2 Ⓢ	ECKD1H103ZF	0.01
C4, 5 [XL] only	ECKDHS102MD	0.001
C6 [XL] only	ECKDHS102MD	0.001
C101 Ⓢ	ECQM1H223JZ	0.022
C102 [DX, DM, EH] only	ECEA0JU471	470
C102 Other	ECEA0JU101	100
C103 [XA, XL, XS] only Ⓢ	ECQM1H153JZ	0.015
C103 [DX, DM, EH] only Ⓢ	ECQM1H102JZ	0.001
C104, 105 Ⓢ	ECKD1H103ZF	0.01
C106 Ⓢ	ECCD1H040CC	4P
C107 Ⓢ	ECCD1H101K	100P
C108	ECEA0JU101	100
C109	ECEA1HUR22	0.22
C110 Ⓢ	ECKD1H103ZF	0.01
C111, 112 Ⓢ	ECKD1H103ZF	0.01
C113, 114 Ⓢ	ECKD1H103ZF	0.01
C115 Ⓢ	ECKD1H103ZF	0.01

Ref. No.	Part No.	Value
C116 [DX, DM, EH] only Ⓢ	ECQM1H102JZ	0.001
C116 Other Ⓢ	ECKD1H103ZF	0.01
C117, 118 Ⓢ	ECKD1H103ZF	0.01
C119, 120 Ⓢ	ECKD1H103ZF	0.01
C121, 122 Ⓢ	ECQM1H223JZ	0.022
C202 Ⓢ	ECQM1H473JZ	0.047
C203 Ⓢ	ECCD1H180KC	18P
C204	ECQP1471JZ	470P
C205	ECEA0JU101	100
C206 Ⓢ	ECKD1H103ZF	0.01
C209 Ⓢ	ECKD1H103ZF	0.01
C210	ECEA0JU330	33
C211 Ⓢ	ECKD1H103ZF	0.01
C212	ECEA1HUR47	0.47
C213 Ⓢ	ECKD1H223ZF	0.022
C214 Ⓢ	ECQM1H223JZ	0.022
C215 Ⓢ	ECKD1H103ZF	0.01
C216	ECEA0JU330	33
C221	ECEA0JU330	33
C301 Ⓢ	ECKD1H103ZF	0.01
C302 Ⓢ	ECKD1H103ZF	0.01

Ref. No.	Part No.	Value
C303	ECEA1AU101	100
C305, 306 [PA, PE] only Ⓢ	ECQM1H223JZ	0.022
C305, 306 Other Ⓢ	ECQM1H153JZ	0.015
C307, 308	ECEA1EU3R3	3.3
C309, 310	ECEA1CU100	10
C311	ECQP2A391GZ	390P
C312	ECEA1CU100	10
C313	ECEA1HUR47	0.47
C314, 315	ECEA1HUR22	0.22
C316	ECEA1CU100	10
C318	ECEA1HU010	1
C319 Ⓢ	ECKD1H103ZF	0.01
C320, 321 Ⓢ	ECQM1H223JZ	0.022
C322 Ⓢ	ECQM1H102JZ	0.001
C501 Ⓢ	ECQM1H473JZ	0.047
C701	ECEA1CU102	1000
C702	ECEA1CU222	2200
C703	ECEA1VU470	47
C704	ECEA1EU101	100

Ref. No.	Part No.	Value
C705, 706 Ⓢ	ECKD1H103ZF	0.01
C707	ECEA1CU100	10
C708	ECKD2H102ZF	0.001
C709	ECEA0JU330	33
C712 ⚠	ECKDKC103PF2	0.01
C713	ECEA1CU100	10
C714	ECEA1VU100	10
C715	ECEA0JU101	100
C716, 717	ECEA1CU100	10
C904	ECEA0JU471	470
C906 Ⓢ	ECCD1H180KC	18P
C907 Ⓢ	ECKD1H103ZF	0.01
C908, 909 Ⓢ	ECKD1H103ZF	0.01
C910	ECEA25M4R7R	4.7
C911 Ⓢ	ECKD1H103ZF	0.01
C915	ECEA1EU4R7	4.7
C916 Ⓢ	ECQM1H223JZ	0.022
C917	ECEA0JU470	47
C918	ECEA1AU330	33
C919	ECEA1CU100	10
C923, 924 Ⓢ	ECKD1H103ZF	0.01
C925 Ⓢ	ECKD1H103ZF	0.01

Printed in Japan
850603000 Ⓗ TM/TN

ORDER NO. HAD85062579C9-A

QUARTZ Synthesizer
AM/FM Stereo Tuner

ST-G6T

DEUTSCH

- This booklet contains the specifications and adjusting procedures for ST–G6T, written in German, French and Spanish.
- File this manual together with the ST–G6T service manual (Order No. HAD85062579C9).

- Das vorliegende Büchlein enthält die technische Daten und Justierverfahren für den ST–G6T in deutscher, französischer und spanischer Sprache.
- Bewahren Sie das Büchlein zusammen mit der Bedienungsanleitung für des ST–G6T auf (Bestell-Nr. HAD85062579C9).

- Cette brochure contient les spécifications et les procédures de mises au point pour le ST–G6T écrites en allemand, en français et en espagnol.
- Classer ce manuel en même temps qu'avec le manuel de service du ST–G6T (N° d'order : HAD85062579C9).

- Este librito contiene la especificaciones y procedimientos de ajuste para ST–G6T escritos en alemán, francés y español.
- Guardar este manual juntamente con el manual de servico de ST–G6T (Pedido N°. HAD85062579C9).

DEUTSCH

■ TECHNISCHE DATEN

(Die technischen Daten können infolge von Verbesserungen ohne Ankündigung geändert werden.)

(DIN 45 500)

■ UKW-TUNERTEIL

Wellenbereich	87,50 ~ 108,00 MHz
	87,525 ~ 108,00 MHz (+25 kHz shift)
Eingangsempfindlichkeit	1,5 μV (nutzbar nach IHF)
S/R 30 dB	1,3 μV (75 Ω)
S/R 26 dB	1,2 μV (75 Ω)
S/R 20 dB	0,9 μV (75 Ω)
Stereoumschaltschwelle bei 46 dB nach IHF	28 μV/75 Ω
Gesamtklirrfaktor	
Mono (normal)	0,02%
Stereo (normal)	0,03%
Geräuschabstand	
Mono	72 dB (80 dB nach IHF)
Stereo	68 dB (73 dB nach IHF)
Frequenzgang	4 Hz ~ 18 kHz (+0,5 dB ~ −1,5 dB)
Trennschärfe bei Störsender	
normal ±400 kHz	50 dB
super narrow ±200 kHz	25 dB
Einfangverhältnis	1,0 dB
Spiegelfrequenz-Dämpfung bei 98 MHz	100 dB
ZF-Dämpfung bei 98 MHz	100 dB
Ansprechdämpfung auf Nebenfrequenzen bei 98 MHz	110 dB
MW-Unterdrückung	55 dB
Übersprechdämpfung	
1 kHz	60 dB
10 kHz	45 dB
Trägerrest	
19 kHz	−55 dB (−60 dB nach IHF)
38 kHz	−40 dB (−45 dB nach IHF)
Kanalabweichung (250 Hz ~ 6300 Hz)	±1,0 dB
Begrenzereinsatz	0,85 μV
Bandbreite	
ZF-Verstärker	180 kHz
UKW-Demodulator	1,000 kHz
Antennenanschluß	75 Ω (unsymmetrisch)

■ MW-TUNERTEIL

Wellenbereiche	
(für Europa, Südafrika und Australien)	
	522 ~ 1611 kHz (9-kHz-Schritte)
	530 ~ 1610 kHz (10-kHz-Schritte)
(für Sudi-Aradien und die übrigen Länder)	
	531~1620 kHz (9-kHz-schritte)
	530~1610 kHz (10-kHz-schritte)
Eingangsempfindlichkeit (S/R 20 dB)	20 μV, 300 μV/m
Trennschärfe (±9 kHz)	55 dB
Spiegelfrequenz-Dämpfung bei 999 kHz	40 dB
ZF-Dämpfung bei 999 kHz	60 dB

■ TIMER

Uhr	Quarzuhr mit 24-Stunden-Anzeige
Genauigkeit	max. 10 Sek./Monat (bei 25°C)
Funktionen	24-Stunden-Programmierung für täglichen (einfach) und einmaligen Betrieb (einfach)
Programmierung	Ein- und Ausschalten der Tonquelle (FM, AM)
Einschaltdauer	1 Min. bis 23 Stdn. 59 Min. (in 1-Minuten-Intervallen)
Prioritätenfolge	"once", "everyday"

■ ALLGEMEINE DATEN

Ausgangsspannung	0,3 V (0,6 V IHF)
Leistungsaufnahme	9,5W (Uhr 8W)
Netzspannung	
Für Kontinentaleuropa	Wechselstrom 50 Hz/60 Hz, 220V
Für andere Länder	Wechselstrom 50 Hz/60 Hz, 110V/127V/220V/240V
Abmessungen (B×H×T)	430 × 64 × 241 mm
Gewicht	2,3 kg

Bemerkung:
Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

DEUTSCH

■ MESSUNGEN UND JUSTIERUNGEN

MW/UKW

Einstellungen der Bedienelemente und zu verwendende Geräte.

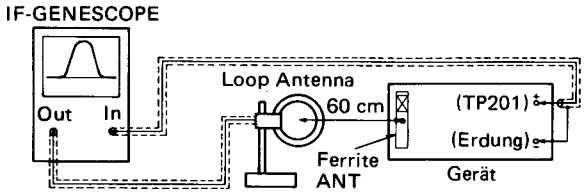
- MW/UKW-Meßsender (MW/UKW-MS)
- Stereo-Modulator
- Verzerrungs-Analystator
- Oszilloskop
- Elektronische Wechselstrom- und Gleichstrom-Voltmeter (EVM).
- Frequenzzähler
- Drosselspule (100μH)
- Widerstand (100kΩ)
- Keramischer Kondensator (200pF)

Anmerkung: Für **L203** (MW-Osz,-Spule), werdeven justiert Ersatzteil geliefert. Dien Kern dieses Teils daher nicht drehen.

AM (MW)-ZF-JUSTIERUNG

1. Der Testaufbau ist in der Abbildung gezeigt.
2. Das Gerät auf "**AM (MW)**" einstellen.
3. Das Radio auf einen Punkt ohne interferenzen abstimmen.
4. **T201** auf maximalen Ausgang und symmetrische Kurven abstimmen.

ZUSTAND DES ZF-MESSENDERS
Frequenz. . . . . 450 kHz

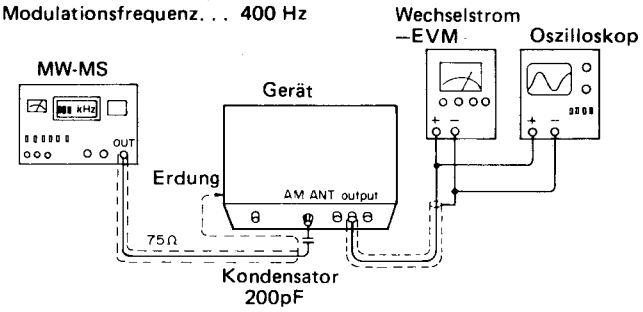


AM (MW)-HF-JUSTIERUNG

1. Der Testaufbau ist in der Abbildung gezeigt.
2. Das Gerät auf "**AM (MW)**" einstellen.
3. Die Radiofrequenzanzeige und den Meßsender auf **612 kHz** einstellen.
4. **L202** auf maximale Ausgangsleistung abgleichen.
5. Die Radiofrequenzanzeige und den Meßsender auf **1503 kHz** einstellen.
6. **CT201** auf maximale Ausgangsleistung abgleichen.
7. Die Schritte 3—6. wiederholen.

Anmerkung: Der Antenneneingang-Signalpegel muß so niedrig wie möglich und frei von automatischer Verstärkungsregelung (AGC) sein.

ZUSTAND DES MW-MESSENDERS
Modulation. 30%
Modulationsfrequenz. . . 400 Hz

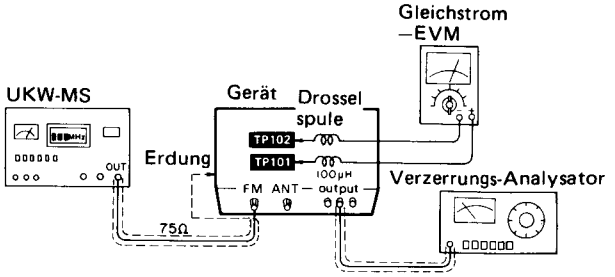


UKW-MONO-VERZERRUNGS-JUSTIERUNG

1. Der Testaufbau ist in der Abbildung gezeigt.
2. Das Gerät auf "**FM (UKW)**" einstellen.
3. Die Radiofrequenzanzeige und den Meßsender auf **100.10 MHz** einstellen.
4. Den Kern von **T101** so justieren, daß die im Signalzustand gemessene Spannung **0 mV (0 ± 50 mV)** im 1V-Bereich beträgt.
5. **T102** so justieren, daß der Verzerrungsfaktor des linken Kanals minimal wird.
6. Schritte 4 und 5 einige Male wiederholen.
7. Überprüfen, daß die Verzerrungsfaktoren des linken und rechten Kanals fast gleich sind.

Anmerkung: Für die Justierung ist ein Schraubendreher aus Kunststoff zu verwenden.

ZUSTAND DES UKW-MESSENDERS
Modulation 100%
Modulationsfrequenz. . . 400 Hz
Ausgangspegel. . . . . 66 dB

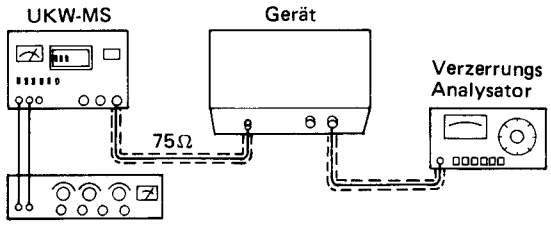


UKW-STEREO-VERZERRUNGS-JUSTIERUNG

1. Der Testaufbau ist in der Abbildung gezeigt.
2. Das Gerät auf "**FM (UKW)**" einstellen.
3. Die Radiofrequenzanzeige und den Meßsender auf **100,10 MHz** einstellen.
4. **T1** so justieren, daß der Verzerrungsfaktor des linken Kanals minimal wird.
5. Überprüfen, daß die Verzerrungsfaktoren des linken und rechten Kanals fast gleich sind.

Anmerkung: Für die Justierung ist ein Schraubendreher aus Kunststoff zu verwenden.

ZUSTAND DES UKW-MESSENDERS
Modulation. 90%
Modulationsfrequenz. . . . . 400 Hz
Ausgangs-pegel. . . . . 66 dB

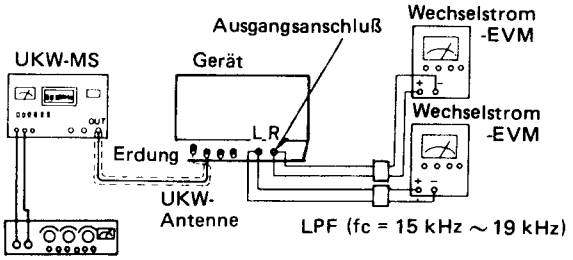


STEREO-MODULATOR
Ausgangs-Betriebsart. . . L oder R

TRENNUNGS-JUSTIERUNG

1. Der Testaufbau ist in der Abbildung gezeigt.
2. Das Gerät auf "FM" einstellen.
3. Die Radiofrequenzanzeige und den Meßsender auf 100,10 MHz einstellen.
4. **VR301** so justieren, daß der R-Ausgang minimal ist, wenn der Stereomodulator im L-Betriebszustand (Linker Kanal moduliert) ist.
5. Für den "R"-Kanal muß die "R"-Betriebsart gewählt werden; und L → R und R → L-Trennung muß mindestens **40 dB** betragen.

ZUSTAND DES UKW-MESSENDERS
Modulation. . . . . "L" order "R" Betriebsart
90%, Pilotsignal 10%
Modulationsfrequenz. . . 1 kHz, Pilot (19 kHz)
Ausgangs-pegel. . . . . 66 dB

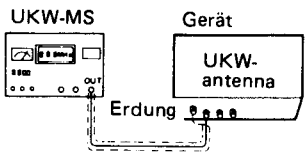


STEREO-MODULATOR

SIGNALSTÄRKEPEGEL-JUSTIERUNG

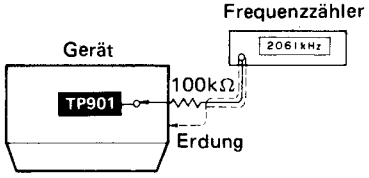
1. Der Testaufbau ist in der Abbildung gezeigt.
2. Das Gerät auf "FM" einstellen.
3. Die Radiofrequenzanzeige und den Meßsender auf 100,10 MHz einstellen.
4. Die Flüssigkristallanzeige-Betriebsart von "**Frequenz**" auf "**dB**" umschalten, durch Drücken der UKW-Signaltaste.
5. **VR101** so justieren, daß 54 dB angezeigt wird.
6. Überprüfen, daß der Signalstärkepegel **22 ~ 38 dB** beträgt, wenn die Eingangsleistung **30 dB** ist.

ZUSTAND DES UKW-MESSENDERS
Modulation. 30%
Modulationsfrequenz. . . 400 Hz
Ausgangs-pegel. . . . . 66 dB



KRISTALLFREQUENZ-JUSTIERUNG

1. Der Testaufbau ist in der Abbildung gezeigt.
2. Das Gerät auf "**AM (MW)**" einstellen.
3. Die Radiofrequenzanzeige auf **1611 kHz** einstellen.
4. **CT901** auf **2061 kHz ± 0,002 kHz** auf der Frequenzzähleranzeige abgleichen.



FRANÇAIS

■ CARACTERISTIQUES

(Sujet à changement sans préavis)

(DIN 45 500)

■ SECTION SYNTONISATEUR FM

Gamme de fréquence	87,50~108,00 MHz
	87,525~108,00 MHz (+25 kHz shift)
Sensibilité	1,5 μV (IHF utilisable)
S/B 30 dB	1,3 μV (75Ω)
S/B 26 dB	1,2 μV (75Ω)
S/B 20 dB	0,9 μV (75Ω)
Sensibilité stéréo au seuil de 46 dB, IHF	28 μV/75Ω
Distorsion harmonique totale	
MONO (normal)	0,02%
STEREO (normal)	0,03%
Signal/Bruit	
MONO	72 dB (80 dB, IHF)
STEREO	68 dB (73 dB, IHF)
Réponse de fréquence	4 Hz~18 kHz, +0,5 dB~−1,5 dB
Sélectivité alternée par canal	
normal ±400 kHz	50 dB
super narrow ±200 kHz	25 dB
Taux de capture	1,0 dB
Rejection d'image à 98 MHz	100 dB
Rejection FI à 98 MHz	100 dB
Rejection de réponse parasite à 98 MHz	110 dB
Suppression AM	55 dB
Séparation stéréophonique	
1 kHz	60 dB
10 kHz	45 dB
Fuite de porteuse	
19 kHz	−55 dB (−60 dB, IHF)
38 kHz	−40 dB (−45 dB, IHF)
Equilibrage de canaux (250 Hz~6,300 Hz)	±1,0 dB
Point de limite	0,85 μV
Largeur de bande	
Amplificateur FI	180 kHz
Démodulateur FM	1,000 kHz
Bornes d'antenne	75Ω (asymétrique)

■ SECTION SYNTONISATEUR AM

Gamme de fréquence	
(Pour l'Europe, l'Afrique du Sud et l'Australie)	
	522~1611 kHz (9 kHz par palier)
	530~1610 kHz (10 kHz par palier)
(Pour l'Arabie Saoudite et les autres pays)	
	531~1620 kHz (9 kHz par palier)
	530~1610 kHz (10 kHz par palier)
Sensibilité (S/B 20 dB)	20 μV, 300 μV/m
Sélectivité (±9 kHz)	55 dB
Réjection d'image à 999 kHz	40 dB
Réjection FI à 999 kHz	60 dB

■ PROGRAMMATEUR

Horloge	Du type verrouillage à quartz Affichage basé sir le système des 24 heures
Précision	Marge de 0 à +10 secondes, mensuellement (à 25° C)
Fonctions	Programmations possibles sur 24 heures: tous les jours (une fois), une fois seulement (une fois)
Eléments de programmation	Programation de sources sonores (marche/arrêt) (FM, AM)
Intervalles de réglage	De 1 minute à 23 heures, 59 minutes (par intervalles de 1 minute)
Ordre de priorité	"once" (une fois), "everyday" (tous les jours)

■ DIVERS

Tension de sortie	0,3V (0,6V IHF)
Consommation	9,5W (Horloge 8W)
Alimentation	
Pour l'Europe	CA 50 Hz/60 Hz, 220V
Autres	CA 50 Hz/60 Hz, 110V/127V/220V/240V
Dimensions (L×H×Pr)	430 × 64 × 241 mm
Poids	2,3 kg

Remarque:
On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).

■ MESURAGES ET REGLAGES

A.M./M.F.

Positionnements des commandes et équipement utilisé

- Générateur de signaux M.F. et A.M. (AM et FM-SG).
- Modulateur stéréophonique
- Analyseur de distorsion
- Oscilloscope
- Voltmètre électronique à C.A. et C.C. (EVM).
- Compteur de fréquence
- Bobine d'amortissement d'arrêt (100μH)
- Résistance (100kΩ)
- Condensateur céramique (200pF)

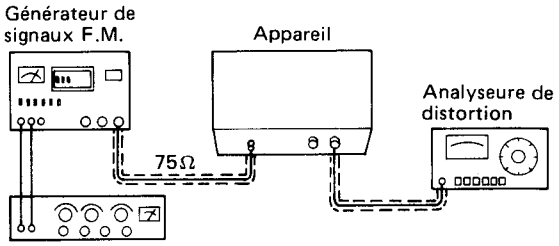
Nota: Pour **L203** (bobine oscil. de MA) des éléments réglés sont fournis.
Aussi, ne pas tourner les noyaux de ces pièces.

REGLAGE DE DISTORSION STEREO M.F.

1. Le raccordement de l'équipement d'essai est montré sur l'inllustration.
2. Régler l'appareil sur la position "**FM**" (M.F.).
3. Ajuster le réglage de l'affichage de radiofréquence et du générateur de signaux sur **100,10 MHz**.
4. Ajuster **T1** de telle que le facteur de distorsion du canal de gauche soit minimisé.
5. S'assurer que les facteurs de distorsion du canal de gauche et du canal de droite soient sensiblement les mêmes l'un par rapport à l'autre.

Nota: Le tournevis de réglage utilisé devra être fait en résines.

CONDITION DU GENERATEUR DE SIGNAUX M.F.
Modulation. 90%
Fréquence de modulation. . . . . 400 Hz
66 dB

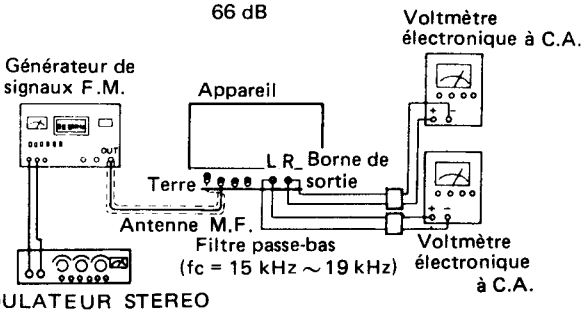


MODULATEUR STEREO
Mode de sortie "G" ou "D"

REGLAGE DE SEPARATION

1. La raccordement de l'équipement d'essai est montré sur l'illustration.
2. Régler l'appareil sur la position "FM" (M.F.).
3. Ajuster le réglage de l'affichage de radiofréquence et du générateur de signaux sur 100,10 MHz.
4. Ajuster **VR301** de telle sorte que la sortie de droite soit minimisée lorsque le modulateur stéréo est sur le mode "G" (modulation du canal de gauche).
5. Le mode devra être de "D" (droite) pour le canal "D"; et la séparation "G" ⟶ "D", "D" ⟶ "G" devra être d'au moins **40 dB**.

CONDITION DU GENERATEUR DE SIGNAUX M.F.
Modulation. . . . . Mode "G" ou mode "D" à 90%, Signal de commande à 10%.
Fréquence de modulation. . . 1 kHz, Pilot (19 kHz)
66 dB

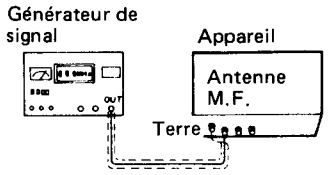


MODULATEUR STEREO

REGLAGE DU NIVEAU D'INTENSITE DE RECEPTION

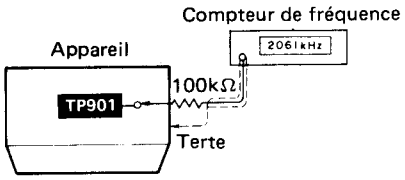
1. Le raccordement de l'équipement d'essai est montré sur l'illustration.
2. Régler l'appareil sur la position "FM".
3. Ajuster le réglage de l'affichage de radiofréquence et du générateur de signaux sur 100,10 MHz.
4. Changer l'affichage à cristaux liquides de "**fréquence**" sur "**dB**" en appuyant sur la touche de signaux FM (M.F.)
5. Ajuster **VR101** de telle sorte que 54 dB soit indiqué.
6. S'assurer que le niveau d'intensité de réception soit de **22 ~ 38 dB** lorsque l'entrée est de **30 dB**.

CONDITION DU GENERATEUR DE SIGNAUX M.F.
Modulation 30%
Fréquence de modulation. . . 400 Hz
66 dB



REGLAGE DE LA FREQUENCE DE CRISTAL

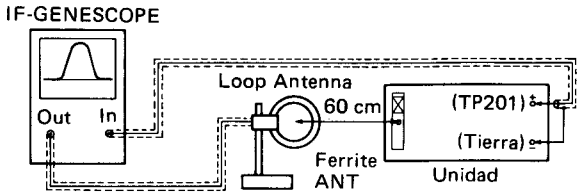
1. Le reccordement de l'équipement d'essai est montré sur l'illustration.
2. Régler l'appareil sur la position "**AM**".
3. Etablir le réglage de l'affichage de radiofréquence sur **1611 kHz**.
4. Régler **CT901** pour une lecture du compteur de fréquence sur **2061 kHz ± 0,002 kHz**.



AJUSTE AM-FI

1. La conexión del equipo de prueba se muestra en la figura.
2. Ajustar la unidad a la posición "**AM**".
3. Poner el indicador de la radio en un lugar que no ofrezca interferencias.
4. Ajustar **T201** y para la salida mámina y curve simétrica.

CONDICION DE GENESCOPE
Frecuencia. . . . . 450 kHz

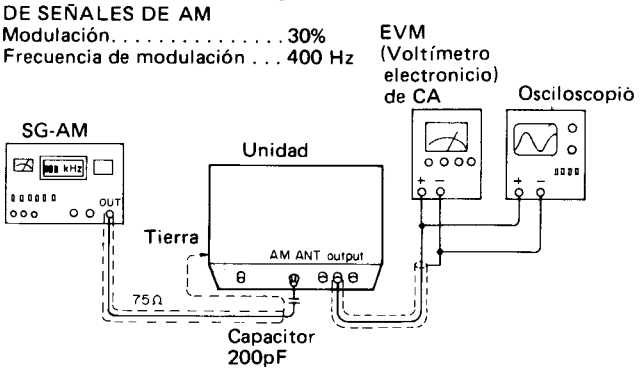


AJUSTE DE AM-RF

1. La conexión del equipo de prueba se muestra en la figura.
2. Ajustar la unidad a la posición "**AM**".
3. Colocar la puesta del indicador de radiofrecuencia y generador de señales a **612 kHz**.
4. Ajustar **L202** para salida máxima.
5. Colocar la puesta del indicador de radiofrecuencia y generador de señales a **1503 kHz**.
6. Ajustar **CT201** para salida máxima.
7. Repitir los pasos 3 ~ 6.

Nota: El nivel de entrada de antena ha de ser lo más bajo posible estando libre de AGC (control automático de ganancia).

CONDICION DE GENERADOR
DE SEÑALES DE AM
Modulación. 30%
Frecuencia de modulación . . . 400 Hz

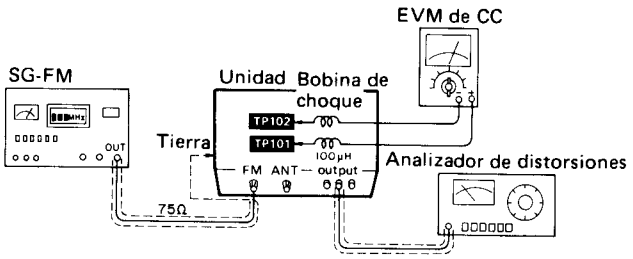


AJUSTE DE DISTORSION MONO FM

1. La conexión del equipo de prueba se muestra en la figura
2. Ajustar la unidad a la posición "**FM**".
3. Colocar la puesta del indicador de radiofrecuencia y generador de señales a **100,10 MHz**.
4. Ajustar el núcleo de **T101** de manera que el voltaje medido en modalidad de señal sea **0 mV (0 ± 50 mV)**.
5. Ajustar **T102** de manera que el factor de distorsión de CH I se minimice.
6. Repetir los pasos 4 y 5 algunas veces.
7. Asegurarse de que los factores de distorsión de CH I y CH D sean casi los mismos uno con el otro.

Nota: El destornillador de ajuste usado debe estar hecho de resina.

CONDICION DE GENERADOR
DE SEÑALES DE FM
Modulación 100%
Frecuencia de modulación . . . 400 Hz
66 dB

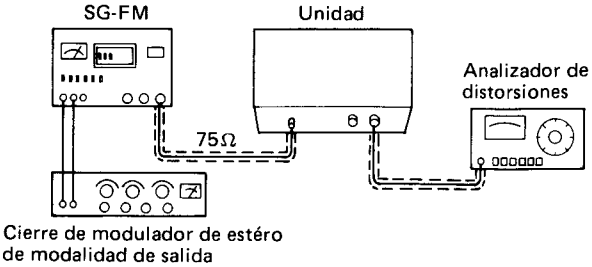


AJUSTE DE DISTORSION ESTERO FM

1. La conexión del equipo de prueba se muestra en la figura.
2. Ajustar la unidad a la posición "**FM**".
3. Colocar la puesta del indicador de radiofrecuencia y generador de señales a **100,10 MHz**.
4. Ajustar **T1** de manera que el factor de distorsión de CH I se minimice.
5. Asegurarse de que los factores de distorsión de CH I y CH D sean casi los mismos uno con el otro.

Nota: El destornillador de ajuste usado debe estar hecho de resina.

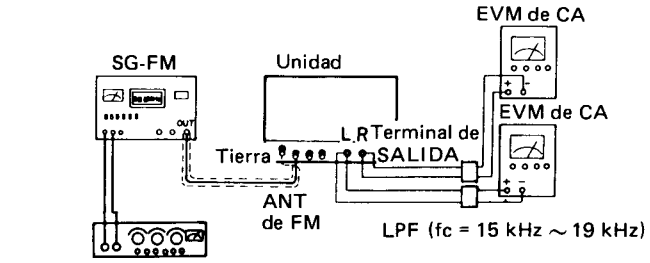
CONDICION DE GENERADOR DE SEÑALES DE FM
Modulación. 90%
Frecuencia de modulación. . . . . 400 Hz
66 dB



AJUSTE DE SEPARACION

1. La conexión del equipo usado se muestra en la figura.
2. Ponga la unidad en la posición "FM".
3. Coloque la puesta del indicador de radiofrecuencia y generador de señales a 100,10 MHz.
4. Ajuste **VR301** de manera que la salida de D quede minimizada cuando el modulador de estéreo esté en la modalidad I (modulación de CH I).
5. La modalidad ha de ser "D" para canal "D"; y la separación de I ⟶ D, D ⟶ I ha de ser **40 dB** por lo menos.

CONDICION DE GENERADOR
DE SEÑALES DE AM
Modulación . . . . . Modalidad de "I" o modalidad de "D" 90%, Piloto 10%
Frecuencia de modulación . . . 1 kHz, Piloto (19 kHz) 66 dB

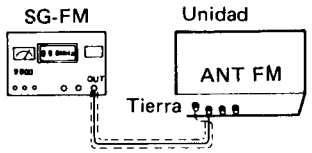


Cierre de modulador de estéreo

AJUSTE DE NIVEL DE INTENSIDAD DE SEÑAL

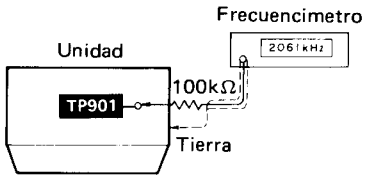
1. La conexión del equipo de prueba se muestra en la figura.
2. Ponga la unidad en la posición "FM".
3. Coloque la puesta del indicador de radiofrecuencia y generador de señales a 100,10 MHz.
4. Cambie el indicador LCD de "**frecuencia**" a "**dB**" pulsando el botón de señal de FM.
5. Ajuste **VR101** de manera que se indiquen 54 dB.
6. Asegúrese de que el nivel de intensidad de señal es **22 ~ 38 dB** cuando la entrada sea **30 dB**.

CONDICION DE GENERADOR
DE SEÑALES DE FM
Modulación. 30%
Frecuencia de modulación. . . 400 Hz 66 dB



AJUSTE DE FRECUENCIA DE CRISTAL

1. La conexión del equipo de prueba se muestra en la figura.
2. Ajustar la unidad a la posición "**AM**".
3. Colocar la puesta de indicador de frecuencia de cristal en **1611 kHz**.
4. Ajustar **CT901** para **2061 kHz ± 0,002 kHz** en lectura de frecuencímetro.



Printed in Japan
850603000 Ⓗ TM/TN

ORDER NO. HAD8708279S2

Service Manual

Supplement

Tuner

ST-G6TL

QUARTZ

Synthesizer LW/MW/FM Stereo Tuner

Color

(K)...Black Type
(S)...Silver Type

Color	Area
(K) (S)	[EK].....United Kingdom.
(K) (S)	[EF].....France.
(K) (S)	[EB].....Belgium.
(K) (S)	[EX].....Continental Europe.

Please file and use this supplement manual together with the service manual for Model No. ST-G6TL, Order No. HAD8506137C2.

CHANGES

■ REPLACEMENT PARTS LIST

Notes: • Part numbers are indicated on most mechanical parts. Please use this part number for parts order.

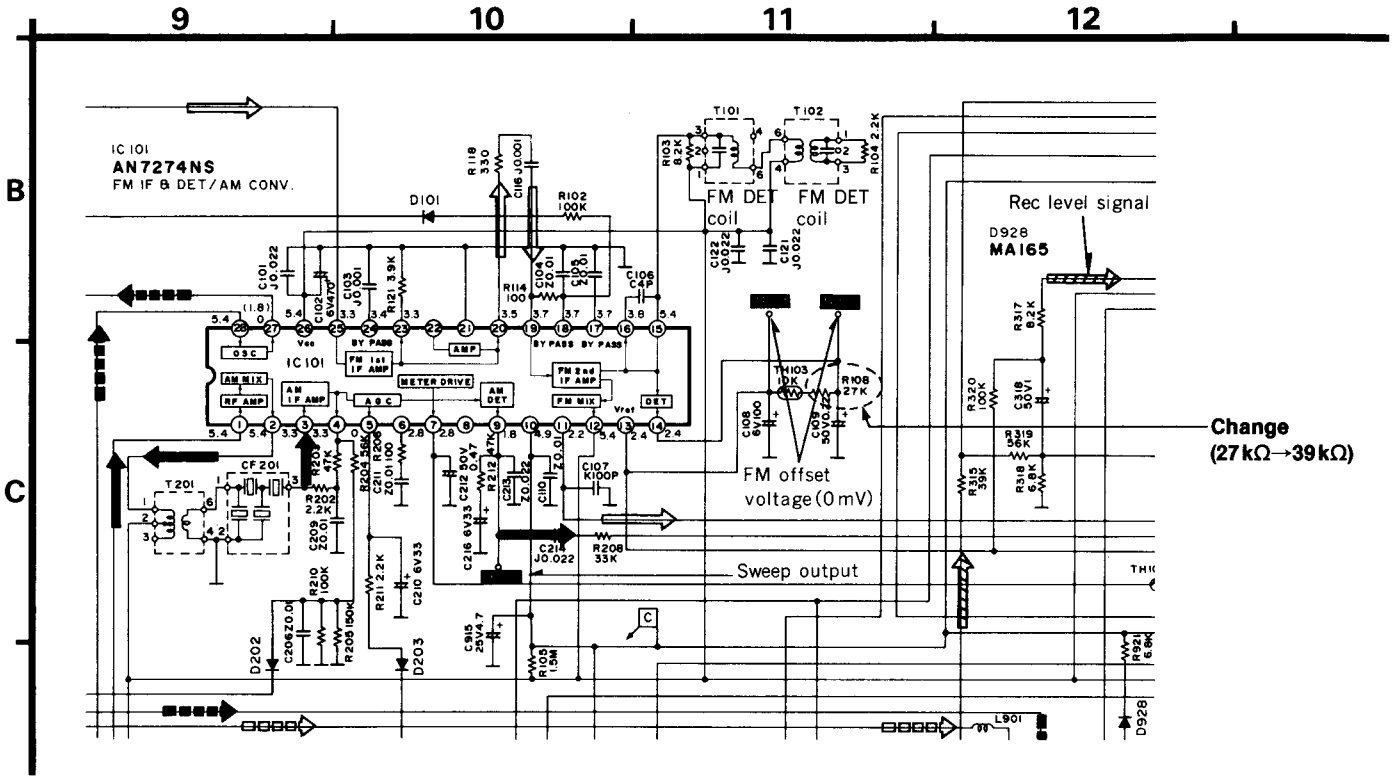
Ref. No.	Change of Parts No. OLD	Change of Parts No. NEW	Part Name & Description	Per Set (Pcs.)	Remarks
RESISTORS					
R108	ERDS2TJ273	**ERDS2TJ393**	Carbon, 39kΩ, 1/4W, ±5%	1	Change
R923	ERDS2TJ104	——	Carbon, 100kΩ, 1/4W, ±5%	0	Deletion

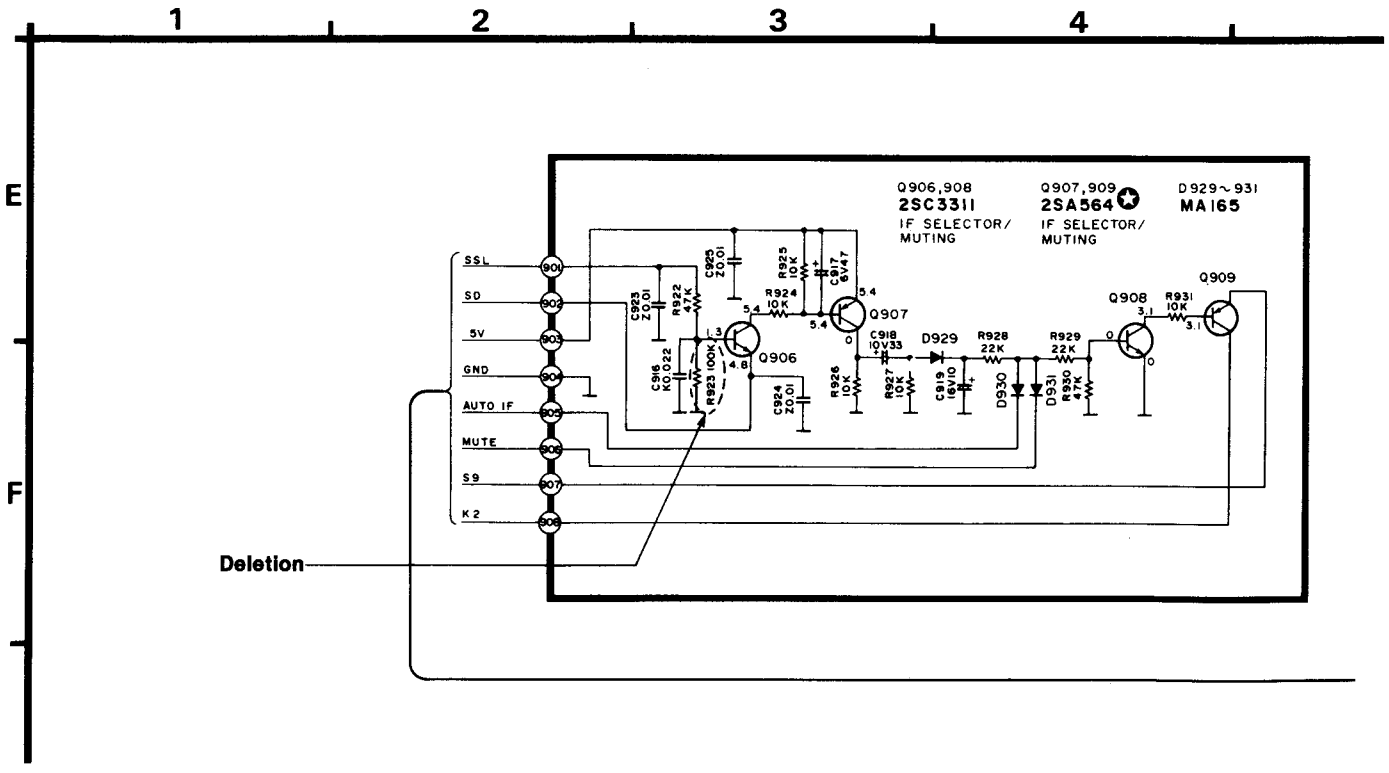
Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ SCHEMATIC DIAGRAM

Note: These resistors have been changed and deleted to improve the efficiency of the FM Auto IF.
(R108 → Change, R923 → Deletion)





Printed in Japan
H870803470SN

ORDER NO. HAD8708278S2

Service Manual

Supplement

Tuner

ST-G6T

QUARTZ

Synthesizer AM/FM Stereo Tuner

Color

(K)...Black Type
(S)...Silver Type

Color	Area
(K) (S)	[EGB] ....F.R Germany.

Please file and use this supplement manual together with the service manual for Model No. ST-G6T, Order No. HAD8507138C2.

CHANGES

■ REPLACEMENT PARTS LIST

Notes: • Part numbers are indicated on most mechanical parts. Please use this part number for parts order.

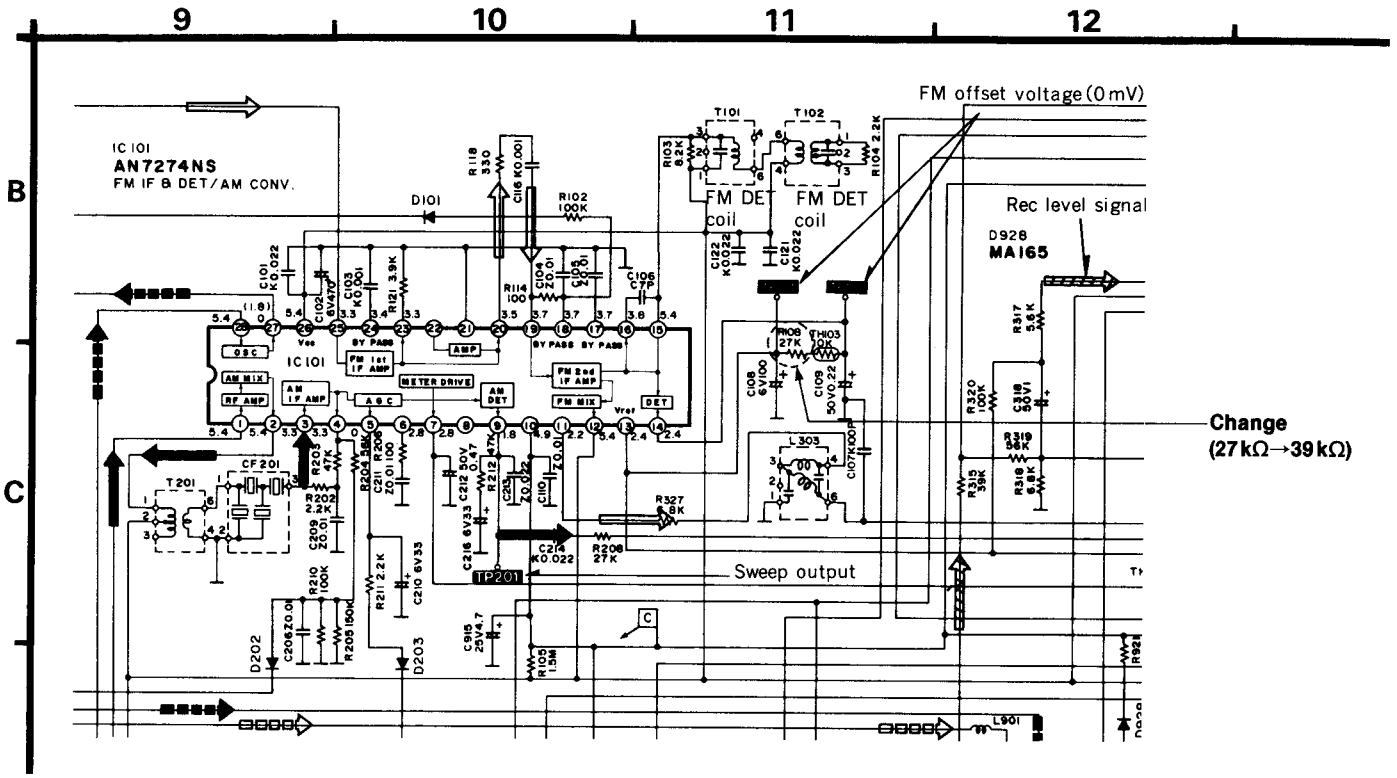
Ref. No.	Change of Parts No. OLD	Change of Parts No. NEW	Part Name & Description	Per Set (Pcs.)	Remarks
RESISTOR					
R108	ERDS2TJ273	**ERDS2TJ393**	Carbon, 39kΩ, 1/4W, ±5%	1	Change
R923	ERDS2TJ104	——	Carbon, 100kΩ, 1/4W, ±5%	0	Deletion

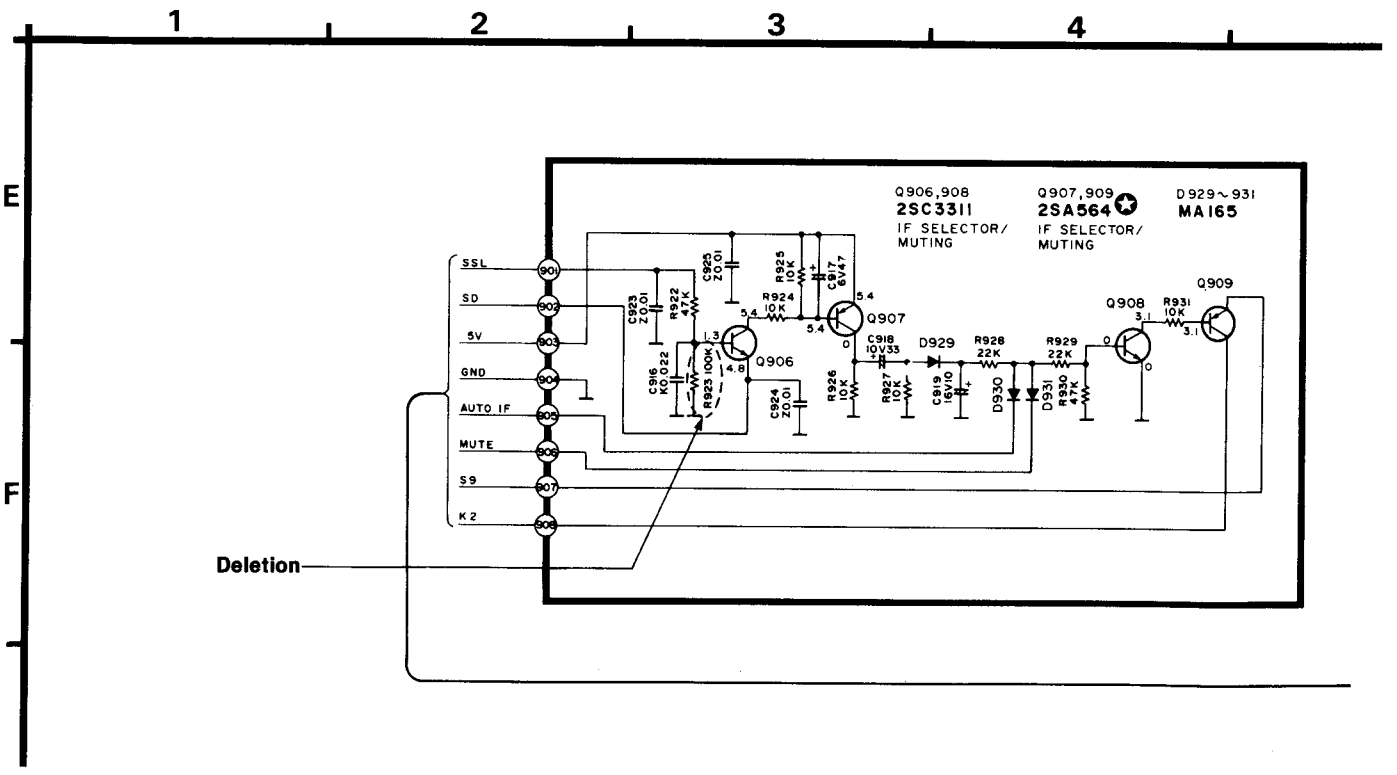
Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ SCHEMATIC DIAGRAM

Note: These resistors have been changed and deleted to improve the efficiency of the FM Auto IF.
(R108 → Change, R923 → Deletion)





Printed in Japan
H870801100SN

SERVICEJIGS CQ-F 30/40/50

INSTRUCTION MANUAL

Disassembly procedure for power on check mode and signal on check.

1.Extension Cord
1 EC-1(5P Connecctor)
2 EC-2(4P Connector)
3 EC-3(6P Connector)

2.Connect the PCB Extension Cords(EC-1,EC-2,EC-3)between the Dolby PCB and the Main PCB as shown below